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Criminal Psychology

A MANUAL FOR JUDGES, PRACTITIONERS, AND STUDENTS

BY HANS GROSS, J. U. D. _Professor of Criminal Law at the University of Graz, Austria. Formerly Magistrate of the Criminal Court at Czernovitz, Austria_

Translated from the Fourth German Edition BY HORACE M. KALLEN, PH. D. *Assistant and Lecturer in Philosophy in Harvard University* WITH AN INTRODUCTION BY JOSEPH JASTROW, PH.D. PROFESSOR OF PSYCHOLOGY IN THE UNIVERSITY OF WISCONSIN

PUBLICATION NO. 13: PATTERSON SMITH REPRINT SERIES IN CRIMINOLOGY, LAW ENFORCEMENT, AND SOCIAL PROBLEMS _Montclair, New Jersey_

GENERAL INTRODUCTION TO THE MODERN CRIMINAL SCIENCE SERIES.

AT the National Conference of Criminal Law and Criminology, held in Chicago, at Northwestern University, in June, 1909, the American Institute of Criminal Law and Criminology was organized; and, as a part of its work, the following resolution was passed:

``*Whereas*, it is exceedingly desirable that important treatises on criminology in foreign languages be made readily accessible in the English language, *Resolved*, that the president appoint a committee of five with power to select such treatises as in their judgment should be translated, and to arrange for their publication."

The Committee appointed under this Resolution has made careful investigation of the literature of the subject, and has consulted by frequent correspondence. It has selected several works from among the mass of material. It has arranged with publisher, with authors, and with translators, for the immediate undertaking and rapid progress of the task. It realizes the necessity of educating the professions and the public by the wide diffusion of information on this subject. It desires here to explain the considerations which have moved it in seeking to select the treatises best adapted to the purpose.

For the community at large, it is important to recognize that criminal science is a larger thing than criminal law. The legal profession in particular has a duty to familiarize itself with the principles of that science, as the sole means for intelligent and systematic improvement of the criminal law.

Two centuries ago, while modern medical science was still young, medical practitioners proceeded upon two general assumptions: one as to the cause of disease, the other as to its treatment. As to the cause of disease,−−disease was sent by the inscrutable will of God. No man could fathom that will, nor its arbitrary operation. As to the treatment of disease, there were believed to be a few remedial agents of universal efficacy. Calomel and bloodletting, for example, were two of the principal ones. A larger or <p vi> smaller dose of calomel, a greater or less quantity of bloodletting, −−this blindly indiscriminate mode of treatment was regarded as orthodox for all common varieties of ailment. And so his calomel pill and his bloodletting lances were carried everywhere with him by the doctor.

Nowadays, all this is past, in medical science. As to the causes of disease, we know that they are facts of nature,−−various, but distinguishable by diagnosis and research, and more or less capable of prevention or control or counter−action. As to the treatment, we now know that there are various specific modes of treatment for specific causes or symptoms, and that the treatment must be adapted to the cause. In short, the individualization of disease, in cause and in treatment, is the dominant truth of modern medical science.

The same truth is now known about crime; but the understanding and the application of it are just opening upon us. The old and still dominant thought is, as to cause, that a crime is caused by the inscrutable moral free will of the human being, doing or not doing the crime, just as it pleases; absolutely free in advance, at any moment of time, to choose or not to choose the criminal act, and therefore in itself the sole and ultimate cause

of crime. As to treatment, there still are just two traditional measures, used in varying doses for all kinds of crime and all kinds of persons,−− jail, or a fine (for death is now employed in rare cases only). But modern science, here as in medicine, recognizes that crime also (like disease) has natural causes. It need not be asserted for one moment that crime is a disease. But it does have natural causes,−− that is, circumstances which work to produce it in a given case. And as to treatment, modern science recognizes that penal or remedial treatment cannot possibly be indiscriminate and machine− like, but must be adapted to the causes, and to the man as affected by those causes. Common sense and logic alike require, inevitably, that the moment we predicate a specific cause for an undesirable effect, the remedial treatment must be specifically adapted to that cause.

Thus the great truth of the present and the future, for criminal science, is the individualization of penal treatment,−−for that man, and for the cause of that man's crime.

Now this truth opens up a vast field for re−examination. It means that we must study all the possible data that can be causes of crime,−−the man's heredity, the man's physical and moral <p vii> make−up, his emotional temperament, the surroundings of his youth, his present home, and other conditions,−−all the influencing circumstances. And it means that the effect of different methods of treatment, old or new, for different kinds of men and of causes, must be studied, experimented, and compared. Only in this way can accurate knowledge be reached, and new efficient measures be adopted.

All this has been going on in Europe for forty years past, and in limited fields in this country. All the branches of science that can help have been working,−−anthropology, medicine, psychology, economics, sociology, philanthropy, penology. The law alone has abstained. The science of law is the one to be served by all this. But the public in general and the legal profession in particular have remained either ignorant of the entire subject or indifferent to the entire scientific movement. And this ignorance or indifference has blocked the way to progress in administration.

The Institute therefore takes upon itself, as one of its aims, to inculcate the study of modern criminal science, as a pressing duty for the legal profession and for the thoughtful community at large. One of its principal modes of stimulating and aiding this study is to make available in the English language the most useful treatises now extant in the Continental languages. Our country has started late. There is much to catch up with, in the results reached elsewhere. We shall, to be sure, profit by the long period of argument and theorizing and experimentation which European thinkers and workers have passed through. But to reap that profit, the results of their experience must be made accessible in the English language.

The effort, in selecting this series of translations, has been to choose those works which best represent the various schools of thought in criminal science, the general results reached, the points of contact or of controversy, and the contrasts of method−−having always in view that class of works which have a more than local value and could best be serviceable to criminal science in our country. As the science has various aspects and emphases−−the anthropological, psychological, sociological, legal, statistical, economic, pathological−−due regard was paid, in the selection, to a representation of all these aspects. And as the several Continental countries have contributed in different ways to these various aspects,−−France, Germany, Italy, most abundantly, but the others each its share,−− the effort was made also to recognize the different contributions as far as feasible. <p viii>

The selection made by the Committee, then, represents its judgment of the works that are most useful and most instructive for the purpose of translation. It is its conviction that this Series, when completed, will furnish the American student of criminal science a systematic and sufficient acquaintance with the controlling doctrines and methods that now hold the stage of thought in Continental Europe. Which of the various principles and methods will prove best adapted to help our problems can only be told after our students and workers have tested them in our own experience. But it is certain that we must first acquaint ourselves with these results of a generation of European thought.

In closing, the Committee thinks it desirable to refer the members of the Institute, for purposes of further investigation of the literature, to the ``Preliminary Bibliography of Modern Criminal Law and Criminology'' (Bulletin No. 1 of the Gary Library of Law of Northwestern University), already issued to members of the Conference. The Committee believes that some of the Anglo− American works listed therein will be found useful.

COMMITTEE ON TRANSLATIONS.

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Professor of Political Science in the State University of Wisconsin. JOHN H. WIGMORE,

Professor of Law in Northwestern University, Chicago.

INTRODUCTION TO THE ENGLISH VERSION.

WHAT Professor Gross presents in this volume is nothing less than an applied psychology of the judicial processes,−−a critical survey of the procedures incident to the administration of justice with due recognition of their intrinsically psychological character, and yet with the insight conferred by a responsible experience with a working system. There is nothing more significant in the history of institutions than their tendency to get in the way of the very purposes which they were devised to meet. The adoration of measures seems to be an ineradicable human trait. Prophets and reformers ever insist upon the values of ideals and ends−−the spiritual meanings of things−−while the people as naturally drift to the worship of cults and ceremonies, and thus secure the more superficial while losing the deeper satisfactions of a duty performed. So restraining is the formal rigidity of primitive cultures that the mind of man hardly moves within their enforced orbits. In complex societies the conservatism, which is at once profitably conservative and needlessly obstructing, assumes a more intricate, a more evasive, and a more engaging form. In an age for which machinery has accomplished such heroic service, the dependence upon mechanical devices acquires quite unprecedented dimensions. It is compatible with, if not provocative of, a mental indolence,−− an attention to details sufficient to operate the machinery, but a disinclination to think about the principles of the ends of its operation. There is no set of human relations that exhibits more distinctively the issues of these undesirable tendencies than those which the process of law adjusts. We have lost utterly the older sense of a hallowed fealty towards man−made law; we are not suffering from the inflexibility of the Medes and the Persians. We manufacture laws as readily as we do steam−rollers and change their patterns to suit the roads we have to build. But with the profit of our adaptability we are in danger of losing the underlying sense of purpose that inspires and continues to justify measures, and to lose also a certain intimate intercourse with problems of theory and philosophy which is one of the requisites of a professional equipment <p x> and one nowhere better appreciated than in countries loyal to Teutonic ideals of culture. The present volume bears the promise of performing a notable service for English readers by rendering accessible an admirable review of the data and principles germane to the practices of justice as related to their intimate conditioning in the psychological traits of men.

The significant fact in regard to the procedures of justice is that they are of men, by men, and for men. Any attempt to eliminate unduly the human element, or to esteem a system apart from its adaptation to the psychology of human traits as they serve the ends of justice, is likely to result in a machine−made justice and a mechanical administration. As a means of furthering the plasticity of the law, of infusing it with a large human vitality−−a movement of large scope in which religion and ethics, economics and sociology are worthily cooperating−−the psychology of the party of the first part and the party of the second part may well be considered. The psychology of the judge enters into the consideration as influentially as the psychology of the offender. The many− sidedness of the problems thus unified in a common application is worthy of emphasis. There is the problem of evidence: the ability of a witness to observe and recount an incident, and the distortions to which such report is liable through errors of sense, confusion of inference with observation, weakness of judgment, prepossession, emotional interest, excitement, or an abnormal mental condition. It is the author's view that the judge should understand these relations not merely in their narrower practical bearings, but in their larger and more theoretical aspects which the study of psychology as a comprehensive science sets forth. There is the allied problem of testimony and belief, which concerns the peculiarly judicial qualities. To ease the step from ideas to their expression, to estimate motive and intention, to know and appraise at their proper value the logical weaknesses and personal foibles of all kinds and conditions of offenders and witnesses,−−to do this in accord with high standards, requires that men as well as evidence shall be judged. Allied to this problem which appeals to a large range of psychological doctrine, there is yet another which appeals to a yet larger and more intricate range,−−that of human character and condition. Crimes are such complex issues as to demand the systematic diagnosis of the criminal. Heredity and environment, associations and standards, initiative and suggestibility, may all be condoning as well as aggravating factors of what becomes a <p xi> ``case." The peculiar temptations of distinctive periods of life, the perplexing intrusion of subtle abnormalities, particularly when of a sexual type, have brought it about that the psychologist has extended his laboratory procedures to include the study of such deviation; and thus a common set of findings have an equally pertinent though a different interest for the theoretical student of relations and the practitioner. There are, as well, certain special psychological conditions that may color and quite transform the interpretation of a situation or a bit of testimony. To distinguish between hysterical deception and lying, between a superstitious believer in the reality of an experience and the victim of an actual hallucination, to detect whether a condition of emotional excitement or despair is a cause or an effect, is no less a psychological problem than the more popularly discussed question of compelling confession of guilt by the analysis of laboratory reactions. It may well be that judges and lawyers and men of science will continue to differ in their estimate of the aid which may come to the practical pursuits from a knowledge of the relations as the psychologist presents them in a non−technical, but yet systematic analysis. Professor Gross believes thoroughly in its importance; and those who read his book will arrive at a clearer view of the methods and issues that give character to this notable chapter in applied psychology.

The author of the volume is a distinguished representative of the modern scientific study of criminology, or ``criminalistic" as he prefers to call it. He was born December 26th, 1847, in Graz (Steiermark), Austria, pursued his university studies at Vienna and Graz, and qualified for the law in 1869. He served as ``Untersuchungsrichter" (examining magistrate) and in other capacities, and received his first academic appointment as professor of criminal law at the University of Czernowitz. He was later attached to the German University at Prague, and is now professor in the University of Graz. He is the author of a considerable range of volumes bearing on the administration of criminal law and upon the theoretical foundations of the science of criminology. In 1898 he issued his ``Handbuch fur Untersuchungsrichter, als System der Kriminalistik," a work that reached its fifth edition in 1908, and has been translated into eight foreign languages. From 1898 on he has been the editor of the ``Archiv f<u:>r Kriminalanthropologie und Kriminalistik," of which about twenty volumes have appeared. He is a frequent contributor to this journal, which is an admirable representative of an efficient technical aid to the dissemination of interest <p xii> in an important and difficult field. It is also worthy of mention that at the University of Graz he has established a Museum of Criminology, and that his son, Otto Gross, is well known as a specialist in nervous and mental disorders and as a contributor to the psychological aspects of his specialty. The volume here presented was issued in 1897; the translation is from the second and enlarged edition of 1905. The volume may be accepted

as an authoritative exposition of a leader in his ``Fach," and is the more acceptable for purposes of translation, in that the wide interests of the writer and his sympathetic handling of his material impart an unusually readable quality to his pages. JOSEPH JASTROW. MADISON, WISCONSIN, DECEMBER, 1910.

AUTHOR'S PREFACE TO THE AMERICAN EDITION.

THE present work was the first really objective Criminal Psychology which dealt with the mental states of judges, experts, jury, witnesses, etc., as well as with the mental states of criminals. And a study of the former is just as needful as a study of the latter. The need has fortunately since been recognized and several studies of special topics treated in this book−−e. g. depositions of witnesses, perception, the pathoformic lie, superstition, probability, sensory illusions, inference, sexual differences, etc.−−have become the subjects of a considerable literature, referred to in our second edition.

I agreed with much pleasure to the proposition of the American Institute of Criminal Law and Criminology to have the book translated. I am proud of the opportunity to address Americans and Englishmen in their language. We of the German countries recognize the intellectual achievements of America and are well aware how much Americans can teach us.

I can only hope that the translation will justify itself by its usefulness to the legal profession. HANS GROSS.

TRANSLATOR'S NOTE.

THE present version of Gross's Kriminal Psychologie differs from the original in the fact that many references not of general psychological or criminological interest or not readily accessible to English readers have been eliminated, and in some instances more accessible ones have been inserted. Prof. Gross's erudition is so stupendous that it reaches far out into texts where no ordinary reader would be able or willing to follow him, and the book suffers no loss from the excision. In other places it was necessary to omit or to condense passages. Wherever this is done attention is called to it in the notes. The chief omission is a portion of the section on dialects. Otherwise the translation is practically literal. Additional bibliography of psychological and criminological works likely to be generally helpful has been appended.

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CRIMINAL PSYCHOLOGY.

INTRODUCTION.

OF all disciplines necessary to the criminal justice in addition to the knowledge of law, the most important are those derived from psychology. For such sciences teach him to know the type of man it is his business to deal with. Now psychological sciences appear in various forms. There is a native psychology, a keenness of vision given in the march of experience, to a few fortunate persons, who see rightly without having learned the laws which determine the course of events, or without being even conscious of them. Of this native psychological power many men show traces, but very few indeed are possessed of as much as criminalists intrinsically require. In the colleges and pre−professional schools we jurists may acquire a little scientific psychology as a ``philosophical propaedeutic,'' but we all know how insufficient it is and how little of it endures in the business of life. And we had rather not reckon up the number of criminalists who, seeing this insufficiency, pursue serious psychological investigations.

One especial psychological discipline which was apparently created for our sake is the psychology of law, the development of which, in Germany, Volkmar[1] recounts. This science afterward developed, through the instrumentality of Metzger[2] and Platner,[3] as criminal psychology. From the medical point of view especially, Choulant's collection of the latter's, ``Quaestiones,'' is still valuable. Criminal psychology was developed further by Hoffbauer,[4] Grohmann,[5]

[1] W. Volkmann v. Volkmar: Lehrbuch der Psychologie (2 vols.). C<o:>then 1875

[2] J. Metzger: ``Gerichtlich−medizinische Abhandhingen.'' K<o:>nigsberg 1803

[3] Ernst Platner: Questiones medicinae forensic, tr. German by Hederich

[4] J. C. Hoffbauer Die Psychologie in ibren Hauptanwendungen auf die Rechtspflege. Halle 1823.

[5] G. A. Grohmann: Ideen zu einer physiognomisehen Anthropologie. Leipzig 1791.

<p 2> Heinroth,[1] Sehaumann,[2] M<u:>nch,[3] Eckartshausen,[4] and others. In Kant's time the subject was a bone of contention between faculties, Kant representing in the quarrel the philosophic, Metzger, Hoffbauer, and Fries,[5] the medical faculties. Later legal psychology was simply absorbed by psychiatry, and thereby completely subsumed among the medical disciplines, in spite of the fact that Regnault,[6] still later, attempted to recover it for philosophy, as is pointed out in Friedreich's[7] well−known text−book (cf. moreover V. Wilbrand's[8] text−book). Nowadays, criminal psychology, as represented by Kraus,[9] Krafft− Ebing,[10] Maudsley,[11] Holtzendorff,[12] Lombroso,[13] and others has become a branch of criminal anthropology. It is valued as the doctrine of motives in crime, or, according to Liszt, as the investigation of the psychophysical condition of the criminal. It is thus only a part of the subject indicated by its name.[14] How utterly criminal psychology has become incorporated in criminal anthropology is demonstrated by the works of N<a:>cke,[15] Kurella,[16] Bleuler,[17] Dallemagne,[18] Marro,[19] Ellis,[20] Baer,[21] Koch,[22] Maschka,[23] Thomson,[24] Ferri,[25] Bonfigli,[26] Corre,[27] etc.

[1] Johann Heinroth: Grundzuge der Kriminalpsychologie. Berlin 1833.

[2] Schaumann: Ideen zu einer Kriminalpsychologie. Halle 1792.

[3] M<u:>nch: <U:>ber den Einfluss der Kriminalpsychologie auf Pin System der Kriminal−Rechts. N<u:>rnberg 1790.

[4] Eckartshausen. <U:>ber die Notwendigkeit psychologiseher Kenntnisse bei Beurteilung von Verbreehern. M<u:>nchen, 1791.

[5] J. Fries: Handbuch der psychologischer Anthropologie. Jena, 1820.

[6] E. Regnault: Das gerichtliche Urteil der <A:>rzte <u:>ber psychologische Zustande. C<o:>ln, 1830.

[7] J. B. Friedreich: System der gerichtlichen Psychologie. Regensburg 1832.

[8] Wilbrand: Gerichtliche Psychologie. 1858.

[9] Kraus: Die Psychologie des Verbrechens. T<u:>bingen, 1884.

[10] v. Krafft−Ebing: Die zweifelhaften Geisteszust<a:>nde. Erlangen 1873.

[11] Maudsley: Physiology and Pathology of the Mind.

[12] v. Holtzendorff−−articles in ``Rechtslexikon.''

[13] Lombroso: L'uomo delinquente, ete.

[14] Asehaffenburg: Articles in Zeitscheift f. d. gesamten Strafreehtwissensehaften, especially in. XX, 201.

[15] Dr. P. N<a:>cke: <U:>ber Kriminal Psychologie, in the above−mentioned Zeitschrift, Vol. XVII. Verbrechen und Wahnsinn beim Weibe. Vienna, Leipsig, 1884. Moral Insanity: <A:>rztliche Sachverst<a:>ndigen−Zeitung, 1895; Neurologisches Zentralblatt, Nos. 11 and 16. 1896

[16] Kurella: Naturgesehichte des Verbreehers. Stuttgart 1893.

[17] Blenler: Der geborene Verbrecher. Munchen 1896.

[18] Dallemagne. Kriminalanthropologie. Paris 1896.

19] Marro: I caratteri dei deliquenti. Turin 1887. I carcerati. Turin 1885.

[20] Havelock Ellis: The Criminal. London 1890.

[21] A. Baer: Der Verbrecher Leipzig 1893.

[22] Koch. Die Frage nach dem geborenen Verbrecher. Ravensberg 1894.

[23] Maschka. Elandbuch der Gerichtlichen Medizin (vol. IV). T<u:>bingen 1883.

[24] Thomson. Psychologie der Verbrecher.

[25] Ferri: Gerichtl. Psychologie. Mailand 1893.

[26] Bonfigli: Die Natugeschichte des Verbrechers. Mailand 1892.

[27] Corre: Les Criminels. Paris 1889.

<p 3>

Literally, criminal psychology should be _that form of psychology used in dealing with crime_; not merely, the psychopathology of criminals, the natural history of the criminal mind. But taken even literally, this is not all the psychology required by the criminalist. No doubt crime is an objective thing. Cain would actually have slaughtered Abel even if at the time Adam and Eve were already dead. But for us each crime exists only as we perceive it,−−as we learn to know it through all those media established for us in criminal procedure. But these media are based upon sense−perception, upon the perception of the judge and his assistants, i. e.: upon witnesses, accused, and experts. Such perceptions must be psychologically validated. The knowledge of the principles of this validation demands again a special department of general psychology−−even such a *pragmatic applied psychology as will deal with all states of mind that might possibly be involved in the determination and judgment of crime*. It is the aim of this book to present such a psychology. ``If we were gods," writes Plato in the Symposium, ``there would be no philosophy"−−and if our senses were truer and our sense keener, we should need no psychology. As it is we must strive hard to determine certainly how we see and think; we must understand these processes according to valid laws organized into a system−− otherwise we remain the shuttlecocks of sense, misunderstanding and accident. We must know how all of us,−−we ourselves, witnesses, experts, and accused, observe and perceive; we must know how they think,−−and how they demonstrate; we must take into account how variously mankind infer and perceive, what mistakes and illusions may ensue; how people recall and bear in mind; how everything varies with age, sex, nature, and cultivation. We must also see clearly what series of influences can prevail to change all those things which would have been different under normal conditions. Indeed, the largest place in this book will be given to the witness and the judge himself, since we want in fact, from the first to keep in mind the creation of material for our instruction; but the psychology of the criminal must also receive consideration where− ever the issue is not concerned with his so−called psychoses, but with the validation of evidence.

Our method will be that fundamental to all psychological investigation, and may be divided into three parts:[1]

1. The preparation of a review of psychological phenomena.

[1] P. Jessen: Versuch einer wissenschaftlichen Begrundung der Psychologie. Berlin 1855.

<p 4>

2. Study of causal relationships.

3. Establishment of the principles of psychic activity.

The subject−matter will be drawn on the one hand, from that already presented by psychological science, but will be treated throughout from the point of view of the criminal judge, and prepared for his purposes. On the other hand, the material will be drawn from these observations that alone the criminologist at work can make, and on this the principles of psychology will be brought to bear.

We shall not espouse either pietism, scepticism, or criticism. We have merely to consider the individual phenomena, as they may concern the criminalist; to examine them and to establish whatever value the material may have for him; what portions may be of use to him in the interest of discovering the truth; and where the dangers may lurk that menace him. And just as we are aware that the comprehension of the fundamental concepts of the exact sciences is not to be derived from their methodology, so we must keep clearly in mind that the truth which we criminalists have to attain can not be constructed out of the *formal* correctness of the content presented us. We are in duty bound to render it *materially* correct. But that is to be achieved only if we are acquainted with principles of psychology, and know how to make them serve our purposes. For our problem, the oft−quoted epigram of Bailey's, ``The study of physiology is as repugnant to the psychologist as that of acoustics to the composer,'' no longer holds. We are not poets, we are investigators. If we are to do our work properly, we must base it completely upon modern psycho physical fundamentals. Whoever expects unaided to find the right thing at the right moment is in the position of the individual who didn't know whether he could play the violin because he had not yet tried. We must gather wisdom while we are not required to use it; when the time for use arrives, the time for harvest is over.

Let this be our fundamental principle: _That we criminalists receive from our main source, the witnesses, many more inferences than observations_, and that this fact is the basis of so many mistakes in our work. Again and again we are taught, in the deposition of evidence, that only facts as plain sense−perceptions should be presented; that inference is the judge's affair. But we only appear to obey this principle; actually, most of what we note as fact and sense−perception, is nothing but a more or less justified judgment, which though presented in the honestest belief, still <p 5> offers no positive truth. ``Amicus Plato, sed magis amica Veritas.''

There is no doubt that there is an increasing, and for us jurists, a not unimportant demand for the study of psychology in its bearing on our profession. But it must be served. The spirited Abb<e'> de Ba<e:>ts, said at a meeting of criminalists in Brussels, that the *present tendency of the science of criminal law demands the observation of the facts of the daily life*. In this observation consists the alpha and omega of our work; we can perform it only with the flux of sensory appearances, and the law which determines this flux, and according to which the appearances come, is the law of causation. But we are nowhere so neglectful of causation as in the deeds of mankind. A knowledge of that region only psychology can give us. Hence, to become conversant with psychological principles, is the obvious duty of that conscientiousness which must hold first place among the forces that conserve the state. It is a fact that there has been in this matter much delinquency and much neglect. If, then, we were compelled to endure some bitterness on account of it, let it be remembered that it was always directed upon the fact that we insisted on studying our statutes and their commentaries, fearfully

excluding every other discipline that might have assisted us, and have imported vitality into our profession. It was Gneist[1] who complained: ``The contemporary low stage of legal education is to be explained like much else by that historical continuity which plays the foremost r<o^>le in the administration of justice." Menger[2] does not mention ``historical continuity" so plainly, but he points sternly enough to the legal sciences as the most backward of all disciplines that were in contact with contemporary tendencies. That these accusations are justified we must admit, when we consider what St<o:>lzel[3] and the genial creator of modern civil teaching demands: ``It must be recognized that jurisprudence in reality is nothing but the thesis of the healthy human understanding in matters of law." But what the ``healthy human mind" requires we can no longer discover from our statutory paragraphs only. How shameful it is for us, when Goldschmidt[4] openly narrates how a famous scientist exclaimed to a student in his laboratory: ``What do you want here? You know nothing, you understand nothing, you do nothing,−−you had better become a lawyer."

[1] R. Gneist: Aphorismen zur Reform des Rechtestudiums. Berlin 1887.

[2] A. Menger: in Archiv fin soziale Gesetzgebung v. Braun II.

[3] A. St<o:>lsel: Schulung fin die Zivilistiche Praxis. 2d Ed. Berlin 1896.

[4] S. Goldschmidt: Rechtestudium und Priifungsordnung. Stuttgart 1887.

<p 6>

Now let us for once frankly confess why we are dealt these disgraceful reproaches. Let us agree that we have not studied or dealt with jurisprudence as a science, have never envisaged it as an empirical discipline; that the aprioristic and classical tradition had kept this insight at a distance, and that where investigation and effort toward the recognition of the true is lacking, there lacks everything of the least scientific importance. To be scientifically legitimate, we need first of all the installation of the disciplines of research which shall have direct relationships with our proper task. In this way only can we attain that spiritual independence by means of spiritual freedom, which Goldschmidt defines as the affair of the higher institutions of learning, and which is also the ideal of our own business in life. And this task is not too great. ``Life is movement," cried Alois von Brinz,[1] in his magnificent inaugural address. ``Life is not the thought, but the thinking which comes in the fullness of action."

It may be announced with joy and satisfaction, that since the publication of the first edition of this book, and bearing upon it, there came to life a rich collection of fortuitous works which have brought together valuable material. Concerning the testimony of witnesses, its nature and value, concerning memory, and the types of reproduction, there is now a considerable literature. Everywhere industrious hands are raised,−−hands of psychologists, physicians, and lawyers, to share in the work. Should they go on unhurt we may perhaps repair the unhappy faults committed by our ancestors through stupid ignorance and destructive use of uncritically collected material.

[1] A. v. Brinz: <U:>ber Universalit<a:>t. Rektorsrede 1876.

PART I.

THE SUBJECTIVE CONDITIONS OF EVIDENCE: THE MENTAL ACTIVITIES OF THE JUDGE.

TITLE A. THE CONDITIONS OF TAKING EVIDENCE.

Topic I. METHOD.

Section I. (a) General Considerations.

SOCRATES, dealing in the Meno with the teachability of virtue, sends for one of Meno's slaves, to prove by him the possibility of absolutely certain a priori knowledge. The slave is to determine the length of a rectangle, the contents of which is twice that of one measuring two feet; but he is to have no previous knowledge of the matter, and is not to be directly coached by Socrates. He is to discover the answer for himself. Actually the slave first gives out an incorrect answer. He answers that the length of a rectangle having twice the area of the one mentioned is four feet, thinking that the length doubles with the area. Thereupon Socrates triumphantly points out to Meno that the slave does as a matter of fact not yet quite know the truth under consideration, but that he really thinks he knows it; and then Socrates, in his own Socratic way, leads the slave to the correct solution. This very significant procedure of the philosopher is cited by Guggenheim[1] as an illustration of the essence of a priori knowledge, and when we properly consider what we have to do with a witness who has to relate any fact, we may see in the Socratic method the simplest example of our task. We must never forget *that the majority of mankind dealing with any subject whatever always believe that they know and repeat the truth*, and even when they say doubtfully: ``I believe.−− It seems to me," there is, in this tentativeness, more meant than meets the ear. When anybody says: ``I believe that−−" it merely means that he intends to insure himself against the event of being contradicted by better informed persons; but he certainly has not

[1] M. Guggenheim: Die Lehre vom aprioristischen Wissen. Berlin 1885.

<p 1> the doubt his expression indicates. When, however, the report of some bare fact is in question (``It rained," ``It was 9 o'clock," ``His beard was brown," or ``It was 8 o'clock,") it does not matter to the narrator, and if he imparts _*such_ facts with the introduction, ``I believe," then he was really uncertain. The matter becomes important only where the issue involves partly−concealed observations, conclusions and judgments. In such cases another factor enters−−conceit; what the witness asserts he is fairly certain of just because he asserts it, and all the ``I believes," ``Perhapses," and ``It seemeds," are merely insurance against all accidents.

Generally statements are made without such reservations and, even if the matter is not long certain, with full assurance. What thus holds of the daily life, holds also, and more intensely, of court− witnesses, particularly in crucial matters. Anybody experienced in their conduct comes to be absolutely convinced that witnesses do not know what they know. A series of assertions are made with utter certainty. Yet when these are successively subjected to closer examinations, tested for their ground and source, only a very small portion can be retained unaltered. Of course, one may here overshoot the mark. It often happens, even in the routine of daily life, that a man may be made to feel shaky in his most absolute convictions, by means of an energetic attack and searching questions. Conscientious and sanguine people are particularly easy subjects of such doubts. Somebody narrates an event; questioning begins as to the indubitability of the fact, as to the exclusion of possible deception; the narrator becomes uncertain, he recalls that, because of a lively imagination, he has already believed himself to have seen things otherwise than they actually were, and finally he admits that the matter might probably have been different. During trials this is still more frequent. The circumstance of being in court of itself excites most people; the consciousness that one's statement is, or may be, of great significance increases the excitement; and the authoritative character of the official subdues very many people to conform their opinions to his. What wonder then, that however much a man may be convinced of the correctness of his evidence, he may yet fail in the face of the doubting judge to know anything certainly?

Now one of the most difficult tasks of the criminalist is to hit, in just such cases, upon the truth; neither to accept the testimony blindly and uncritically; nor to render the witness, who otherwise <p 9> is telling the truth, vacillating and doubtful. But it is still more difficult to lead the witness, who is not intentionally falsifying, but has merely observed incorrectly or has made false conclusions, to a statement of the truth as Socrates leads the slave in the Meno. It is as modern as it is comfortable to assert that this is not the judge's business−−that the witness is to depose, his evidence is to be accepted, and the judge is to judge. Yet it is supposed before everything else that the duty of the court is to establish the material truth−−that the formal

truth is insufficient. Moreover, if we notice false observations and let them by, then, under certain circumstance, we are minus one important piece of evidence _*pro_ and _*con_, and the whole case may be turned topsy turvy. At the very least a basis of development in the presentation of evidence is so excluded. We shall, then, proceed in the Socratic fashion. But, inasmuch as we are not concerned with mathematics, and are hence more badly placed in the matter of proof, we shall have to proceed more cautiously and with less certainty, than when the question is merely one of the area of a square. On the one hand we know only in the rarest cases that we are not ourselves mistaken, so that we must not, without anything further, lead another to agree with us; on the other hand we must beware of perverting the witness from his possibly sound opinions. It is not desirable to speak of suggestion in this matter, since, if I believe that the other fellow knows a matter better than I and conform to his opinion, there is as yet no suggestion. And this pure form of change of opinion and of openness to conviction is commonest among us. Whoever is able to correct the witness's apparently false conceptions and to lead him to discover his error of his own accord and then to speak the truth−− whoever can do this and yet does not go too far, deducing from the facts nothing that does not actually follow from them−−that man is a master among us.

Section 2. (b) The Method of Natural Science.[1]

If now we ask how we are to plan our work, what method we are to follow, we must agree that to establish scientifically the principles of our discipline alone is not sufficient. If we are to make progress, the daily routine also must be scientifically administered. Every sentence, every investigation, every official act must satisfy the same demand as that made of the entire juristic science. In this way only

[1] Cf. H. Gross's Archiv VI, 328 and VIII, 84.

<p 10> can we rise above the mere workaday world of manual labor, with its sense−dulling disgust, its vexatious monotony, and its frightful menace against law and justice. While jurists merely studied the language of dead laws, expounding them with effort unceasing, and, one may complain, propounding more, we must have despaired of ever being scientific. And this because law as a science painfully sought justification in deduction from long obsolete norms and in the explanation of texts. To jurisprudence was left only the empty shell, and a man like Ihering[1] spoke of a ``circus for dialectico− acrobatic tricks."

Yet the scientific quality is right to hand. We need only to take hold of the method, that for nearly a century has shown itself to us the most helpful. Since Warnk<o:>nig (1819)[2] told us, ``Jurisprudence must become a natural science," men have rung changes upon this battle cry (cf. Spitzer[3]). And even if, because misunderstood, it led in some directions wrongly, it does seem as if a genuinely scientific direction might be given to our doctrines and their application. We know very well that we may not hurry. Wherever people delayed in establishing the right thing and then suddenly tried for it, they went in their haste too far. This is apparent not only in the situations of life; it is visible, in the very recent hasty conclusions of the Lombrosists, in their very good, but inadequate observations, and unjustified and strained inferences. We are not to figure the scientific method from these.[4] It is for us to gather facts and to study them. The drawing of inferences we may leave to our more fortunate successors. But in the daily routine we may vary this procedure a little. We draw there _*particular_ inferences from correct and simple observations. ``From facts to ideas," says <O:>ttingen.[5] ``The world has for several millenniums tried to subdue matter to preconceptions and the world has failed. Now the procedure is reversed." ``From facts to ideas"−−there lies our road, let us for once observe the facts of life without prejudice, without maxims built on preconceptions; let us establish them, strip them of all alien character. Then finally, when we find nothing more in the least doubtful, we may theorize about them, and draw inferences, modestly and with caution.

Every fundamental investigation must first of all establish the

[1] R. v. Ihering: Scherz und Ernst in der Jurisprudenz. Leipzig 1885.

[2] Warnkonig. Versuch einer Begr<u:>ndung des Rechtes. Bonn 1819.

[3] H. Spitzer: <U:>ber das Verh<a:>ltnis der Philosophie zu den organischen Naturwissensehaften. Leipzig 1883.

[4] Cf. Gross's Archiv VIII 89.

[5] A. v. <O:>ttingen: Moralstatistik. Erlangen 1882.

<p 11> nature of its subject matter. This is the maxim of a book, ``<U:>ber die Dummheit''[1] (1886), one of the wisest ever written. The same axiomatic proposition must dominate every legal task, but especially every task of criminal law. It is possible to read thousands upon thousands of testimonies and to make again this identical, fatiguing, contrary observation: The two, witness and judge, have not defined the nature of this subject; they have not determined what they wanted of each other. The one spoke of one matter, the other of another; but just what the thing really was that was to have been established, the one did not know and the other did not tell him. But the blame for this defective formulation does not rest with the witness−−formulation was the other man's business.

When the real issue is defined the essentially modern and scientific investigation begins. Ebbinghaus,[2] I believe, has for our purpose defined it best. It consists in trying to keep constant the complex of conditions demonstrated to be necessary for the realization of a given effect. It consists in varying these conditions, in isolating one from the other in a numerically determinable order, and finally, in establishing the accompanying changes with regard to the effect, in a quantified or countable order.

I can not here say anything further to show that this is the sole correct method of establishing the necessary principles of our science. The aim is only to test the practicality of this method in the routine of a criminal case, and to see if it is not, indeed, the only one by which to attain complete and indubitable results. If it is, it must _*be of use_ not only during the whole trial−−not only in the testing of collected evidence, but also in the testing of every individual portion thereof, analyzed into its component elements.

Let us first consider the whole trial.

The _*effect_ is here the evidence of A's guilt. The complex conditions for its establishment are the collective instruments in getting evidence; the individual conditions are to be established by means of the individual sources of evidence−−testimony of witnesses, examination of the premises, obduction, protocol, etc.

The constantification of conditions now consists in standardizing the present instance, thus: Whenever similar circumstances are given, i. e.: the same instruments of evidence are present, the evidence of guilt is established. Now the accompanying changes with regard to the effect, i. e.: proof of guilt through evidence, have to

[1] Erdmann <U:>ber die Dummheit. 1886.

[2] Ebbinghaus: <U:>ber das Ged<a:>chtniss. Leipzig 1885.

<p 12> be tested−−therefore the individual conditions−−i.e.: the individual sources of evidence have to be established and their values to be determined and _*varied_. Finally, the accompanying change in effect (conviction by evidence) is to be tested. The last procedure requires discussion; the rest is self evident. In our business isolation is comparatively easy, inasmuch as any individual statement, any visual impression, any effect, etc., may be abstracted without difficulty. Much harder is the determination of its value. If, however, we clearly recognize that it is necessary to express the exact value of each particular source of evidence, and that the task is only to determine comparative valuation, the possibility of such a thing, in at least a

sufficiently close degree of certainty, must be granted. The valuation must be made in respect of two things−−(1) its _*reliability_ (subjective and relative); (2) its _*significance_ (objective and absolute). On the one hand, the value of the evidence itself must be tested according to the appraisement of the person who presents it and of the conditions under which he is important; on the other, what influence evidence accepted as reliable can exercise upon the _*effect_, considered in and for itself. So then, when a testimony is being considered, it must first be determined whether the witness was able and willing to speak the truth, and further, what the importance of the testimony may be in terms of the changes it may cause in the _*organization_ of the case.

Of greatest importance and most difficult is the variation of conditions and the establishment of the changes thereby generated, with regard to the _*effect_,−−i. e.: the critical interpretation of the material in hand. Applied to a case, the problem presents itself in this wise: I consider each detail of evidence by itself and cleared of all others, and I vary it as often as it is objectively possible to do so. Thus I suppose that each statement of the witness might be a lie, entirely or in part; it might be incorrect observation, false inference, etc.−−and then I ask myself: Does the evidence of guilt, the establishment of an especial trial, now remain just? If not, is it just under other and related possible circumstances? Am I in possession of these circumstances? If now the degree of apparent truth is so far tested that these variations may enter and the accusation still remain just, the defendant is convicted: but only under these circumstances.

The same procedure here required for the conduct of a complete trial, is to be followed also, in miniature, in the production of particulars of evidence. Let us again construe an instance. <p 13> The _*effect_ now is the establishment of the objective correctness of some particular point (made by statements of witnesses, looks, etc.). The _*complex of conditions_ consists in the collection of these influences which might render doubtful the correctness−−i. e., dishonesty of witnesses, defective examination of locality, unreliability of the object, ignorance of experts, etc. It is necessary to know clearly which of these influences might be potent in the case in hand, and to what degree. The _*standardization_ consists, also this time, in the comparison of the conditions of the present case with those of other cases. The _*variation_, again, consists in the abstraction from the evidence of those details which might possibly be incorrect, thus correcting it, from various points of view, and finally, in observing the _*effect_ as it defines itself under this variety of formulation.

This procedure, adopted in the preparation and judgment of each new piece of evidence, excludes error as far as our means conceivably permit. Only one thing more is needful−−a narrow and minute research into that order of succession which is of indispensable importance in every natural science. ``Of all truths concerning natural phenomena, those which deal with the order of succession are for us the most important. Upon a knowledge of them is grounded every intelligent anticipation of the future'' (J. S. Mill).[1] The oversight of this doctrine is the largest cause of our failures. We must, in the determination of evidence, cleave to it. Whenever the question of influence upon the ``_*effect_'' is raised, the problem of order is found invariably the most important. Mistakes and impossibilities are in the main discovered only when the examination of the order of succession has been undertaken.

In short: We have confined ourselves long enough to the mere study of our legal canons. We now set out upon an exact consideration of their material. To do this, obviously demands a retreat to the starting−point and a beginning we ought to have made long ago; but natural sciences, on which we model ourselves, have had to do the identical thing and are now at it openly and honestly. Ancient medicine looked first of all for the universal panacea and boiled theriac; contemporary medicine dissects, uses the microscope, and experiments, recognizes no panacea, accepts barely a few specifics. Modern medicine has seen the mistake. But we lawyers boil our theriac even nowadays and regard the most important study, the study of reality, with arrogance.

[1] J. S. Mill: System of Logic.

<p 14> Topic II. PSYCHOLOGIC LESSONS.

Section 3. (a) General Considerations.

Of the criminalist's tasks, the most important are those involving his dealings with the other men who determine his work, with witnesses, accused, jurymen, colleagues, etc. These are the most pregnant of consequences. In every case his success depends on his skill, his tact, his knowledge of human nature, his patience, and his propriety of manner. Anybody who takes the trouble, may note speedily the great differences in efficiency between those who do and those who do not possess such qualities. That they are important to witnesses and accused is undoubted. But this importance is manifest to still others. The intercourse between various examining judges and experts is a matter of daily observation. One judge puts the question according to law and expects to be respected. He does not make explicit how perfectly indifferent the whole affair is to him, but experts have sufficient opportunity to take note of that fact. The other narrates the case, explains to the experts its various particular possibilities, finds out whether and what further elucidation they demand, perhaps inquires into the intended manner and method of the expert solution of the problem, informs himself of the case by their means, and manifests especial interest in the difficult and far too much neglected work of the experts. It may be said that the latter will do their work in the one case as in the other, with the same result. This would be true if, unfortunately, experts were not also endowed with the same imperfections as other mortals, and are thus far also infected by interest or indifference. Just imagine that besides the examining magistrate of a great superior court, every justice and, in addition, all the chiefs and officials manifested equal indifference! Then even the most devoted experts would grow cool and do only what they absolutely had to. But if all the members of the same court are actuated by the same keen interest and comport themselves as described, how different the affair becomes! It would be impossible that even the indifferent, and perhaps least industrious experts, should not be carried out of themselves by the general interest, should not finally realize the importance of their position, and do their utmost.

The same thing is true of the president, the jurymen and their fellow−judges. It is observable that here and there a presiding justice succeeds in boring all concerned during even criminal cases interesting <p 15> in themselves; the incident drags on, and people are interested only in finally seeing the end of the matter. Other presiding justices again, fortunately the majority, understand how to impart apparent importance to even the simplest case. Whatever office anybody may hold,−−he and his mates are commissioned in the common task, and should the thing come up for judgment, everybody does his best. The difference here is not due to temperamental freshness or tediousness; the result depends only upon a correct or incorrect psychological handling of the participants. The latter must in every single case be led and trained anew to interest, conscientiousness and co−operation. In this need lies the educational opportunity of the criminal judge. Whether it arises with regard to the accused, the witness, the associate justice, or the expert, is all one; it is invariably the same.

That knowledge of human nature is for this purpose most important to the criminalist will be as little challenged as the circumstance that such knowledge can not be acquired from books. Curiously enough, there are not a few on the subject, but I suspect that whoever studies or memorizes them, (such books as Pockel's, Herz's, Meister's, Engel's, Jassoix's, and others, enumerated by Volkmar) will have gained little that is of use. A knowledge of human nature is acquired only (barring of course a certain talent thereto) by persevering observation, comparison, summarization, and further comparison. So acquired, it sets its possessor to the fore, and makes him independent of a mass of information with which the others have to repair their ignorance of mankind. This is to be observed in countless cases in our profession. Whoever has had to deal with certain sorts of swindlers, lying horsetraders, antiquarians, prestidigitators, soon comes to the remarkable conclusion, that of this class, exactly those who flourish most in their profession and really get rich understand their trade the least. The horsedealer is no connoisseur whatever in horses, the antiquarian can not judge the value nor the age and excellence of antiquities, the cardsharp knows a few stupid tricks with which, one might think, he ought to be able to deceive only the most innocent persons. Nevertheless they all have comfortable incomes, and merely because they know their fellows and have practiced this knowledge with repeatedly fresh applications.

I do not of course assert that we criminalists need little scholarly knowledge of law, and ought to depend entirely upon knowledge of men. We need exactly as much more knowledge as our task exceeds <p 16> that of the horse−dealer, but we can not do without knowledge of humanity. The immense onerousness of the judge's office lies in just the fact that he needs so very much more than his bare legal knowledge. He must, before all things, be a jurist and not merely a criminalist; he must be in full possession not only of the knowledge he has acquired in his academy, but of the very latest up−to−date status of his entire science. If he neglects the purely theoretical, he degenerates into a mere laborer. He is in duty bound not only to make himself familiar with hundreds of things, to be able to consort with all sorts of crafts and trades, but also, finally, to form so much out of the material supplied him by the law as is possible to human power.

Section 4. (b) Integrity of Witnesses.

One of the criminal judge's grossest derelictions from duty consists in his simply throwing the witness the question and in permitting him to say what he chooses. If he contents himself in that, he leaves to the witness's conscience the telling of the truth, and the whole truth; the witness is, in such a case, certainly responsible for one part of the untruthful and suppressed, but the responsibility for the other, and larger part, lies with the judge who has failed to do his best to bring out the uttermost value of the evidence, indifferently for or against the prisoner. The work of education is intended for this purpose,−−not, as might be supposed, for training the populace as a whole into good witnesses, but to make that individual into a good, trustworthy witness who is called upon to testify for the first, and, perhaps, for the last time in his life. This training must in each case take two directions−−it must make him _*want_ to tell the truth; it must make him _*able_ to tell the truth. The first requirement deals not only with the lie alone, it deals with the development of complete conscientiousness. How to face the lie itself can not be determined by means of training, but conscientious answers under examination can certainly be so acquired. We are not here considering people to whom truth is an utter stranger, who are fundamentally liars and whose very existence is a libel on mankind. We consider here only those people who have been unaccustomed to speaking the full and unadulterated truth, who have contented themselves throughout their lives with ``approximately," and have never had the opportunity of learning the value of veracity. It may be said that a disturbingly large number of <p 17> people are given to wandering, in conversation, and in the reproduction of the past. They do not go straight, quickly, and openly to the point, they loiter toward it−−``If I do not reach it in a bee line, I can get along on by−paths, if not to−day, then to−morrow; and if I really do not get to it at all, I do get somewhere else." Such people have not homes but inns−−if they are not in one place, another will do.

These persons are characterized by the event that whenever one has seen their loitering and puts the matter to them with just anger, they either get frightened or say carelessly, ``Oh, I thought this was not so accurate." This famine of conscience, this indifference to truth, does far−reaching damage in our profession. I assert that it does immensely greater harm than obvious falsehood, because, indeed, the unvarnished lie is much more easily discoverable than the probable truth which is still untruth. Moreover, lies come generally from people with regard to whom one is, for one reason or another, already cautious, while these insinuating approximations are made by people who are not mistrusted at all.[1]

The lack of conscientiousness is common to all ages, both sexes, and to all sorts and conditions of men. But it is most characteristically frequent and sharply defined among people who have no real business in life. Whoever romances in the daily life, romances when he ought to be absolutely truthful. The most dangerous of this class are those who make a living by means of show and exhibition. They are not conscienceless because they do nothing worth while; they do nothing worth while because they are conscienceless. To this class belong peddlers, street merchants, innkeepers, certain shop−keepers, hack−drivers, artists, etc., and especially prostitutes (cf. Lombroso, etc., etc.). All these people follow a calling perhaps much troubled, but they do no actual work and have chosen their profession to avoid regular, actual work. They have much unoccupied time, and when they are working, part of the work consists of gossip, part of loafing about, or of a use of the hands that is little more. In brief,−−since they loiter about and make a profit out of it, it is no wonder that in giving evidence they also loaf and bring to light only approximate truth. Nor is it difficult to indicate analogous

persons in the higher walks of life.

The most hateful and most dangerous of these people are the congenital tramps−−people who did not have to work and faithfully pursued the opportunity of doing nothing. Whoever does not

[1] Cf. L<o:>wenstimm, in H. Gross's Archiv, VII, 191.

<p 18> recognize that the world has no place for idlers and that life on God's earth must be earned by labor, is without conscience. No conscientious testimony need be expected from such. Among the few rules without exception which in the course of long experience the criminalist may make, this is one−−that _the real tramps of both sexes and all walks of life will never testify conscientiously;−−hic niger est, hunc Tu, Romane, caveto_.

Section 5. (c) The Correctness of Testimony.

The training of the witness into a _*capacity_ for truth−telling must be based, (1) on the judge's knowledge of all the conditions that affect, negatively, correct observations and reproductions; (2) on his making clear to himself whether and which conditions are operative in the case in question; and (3) on his aiming to eliminate this negative influence from the witness. The last is in many cases difficult, but not impossible. That mistakes have been made is generally soon noted, but then, ``being called and being chosen'' are two things; and similarly, the discovery of _*what_ is correct and the substitution of the essential observations for the opinionative ones, is always the most difficult of the judge's tasks.

When the witness is both unwilling to tell the truth and unable to do so, the business of training may be approached from a few common view−points. Patience with the witness is perhaps the most important key to success. No doubt it is difficult to be patient where there is no time; and what with our contemporary overtasking, there is no time. But that must be altered. Justice must have strength to keep everybody's labor proportional to his task. A nation whose representatives do not grant money enough for this purpose must not expect satisfactory law courts−−``no checkee no washee;'' no money no justice. People who have time will acquire patience.

Patience is necessary above all while taking evidence. A great many witnesses are accustomed to say much and redundantly, and again, most criminal justices are accustomed to try to shut them off and to require brief statements. That is silly. If the witness is wandering on purpose, as many a prisoner does for definite reasons of his own, he will spread himself still more as he recognizes that his examiner does not like it. To be disagreeable is his purpose. He is never led by impatience beyond his introduction, and some piece of evidence is lost because almost every accused who speaks <p 19> unintelligibly on purpose, says too much in the course of his speech and brings things to light that no effort might otherwise have attained to. Besides, whoever is making a purposely long−winded testimony does not want to say anything superfluous, and if he actually does so, is unaware of it. And even when he knows that he is talking too much (most of the time he knows it from the impatient looks of his auditors), he never can tell just what exceeded the measure. If, then, he is asked to cut it short, he remains unmoved, or at most begins again at the beginning, or, if he actually condescends, he omits things of importance, perhaps even of the utmost importance. Nor must it be forgotten that at least a large proportion of such people who are brought to court have prepared their story or probably blocked it out in the rough. If they are not permitted to follow their plans, they get confused, and nothing coherent or half−coherent is discovered. And generally those who say most have thought their testimony over before. Those who merely have to say no more than _*yes_ and _*no_ at the trial do not reduce the little they are going to say to any great order; that is done only by such as have a story to tell. Once the stream of talk breaks loose it is best allowed to flow on, and only then interrupted with appropriate questions when it threatens to become exhausting. Help against too much talk can be found in one direction. But it must be made use of before the evil begins, and is in any event of use only in the description of a long chain of events,−−e. g., a great brawl. There, if one has been put in complete possession of the whole truth, through

one or more witnesses, the next witness may be told: ``Begin where X entered the room." If that is not done, one may be compelled to hear all the witness did the day before the brawl and how these introductions, in themselves indifferent, have led to the event. But if you set the subject, the witness simply abandons the first part of possibly studied testimony without thereby losing his coherence. The procedure may be accurately observed: The witness is told, ``Begin at this or that point." This deliverance is generally followed by a pause during which he obviously reviews and sets aside the part of his prepared speech dealing with the events preliminary to the required points. If, however, the setting of a starting point does not work and the witness says he must begin at the earlier stage, let him do so. Otherwise he tries so hard to begin according to request that, unable to go his own way, he confuses everything.

The patience required for taking testimony is needful also in <p 20> cross−examination. Not only children and slow−witted folk, but also bright persons often answer only ``yes" and ``no,"[1] and these bare answers demand a patience most necessary with just this bareness, if the answers are to be pursued for some time and consecutively. The danger of impatience is the more obvious inasmuch as everyone recognizes more or less clearly that he is likely to set the reserved witness suggestive questions and so to learn things that the witness never would have said. Not everybody, indeed, who makes monosyllabic replies in court has this nature, but in the long run, this common characteristic is manifest, and these laconic people are really not able to deliver themselves connectedly in long speeches. If, then, the witness has made only the shortest replies and a coherent well−composed story be made of them, the witness will, when his testimony is read to him, often not notice the untruths it might contain. He is so little accustomed to his own prolonged discourse that at most he wonders at his excellent speech without noticing even coarse falsehoods. If, contrary to expectation, he does notice them, he is too chary of words to call attention to them, assents, and is glad to see the torture coming to an end. Hence, nothing but endless patience will do to bring the laconic witness to say at least enough to make his information coherent, even though brief. It may be presented in this form for protocol.

Section 6. (d) Presuppositions of Evidence−Taking.

One of the most important rules of evidence−taking is not to suppose that practically any witness is skilled in statement of what he remembers. Even of child training, Fr<o:>bel[2] says, ``Men must be drawn out, not probed." And this is the more valid in jurisprudence, and the more difficult, since the lawyers have at most only as many hours with the individual as the teacher has years. However, we must aim to draw the witness out, and if it does not work at first, we must nevertheless not despair of succeeding.

The chief thing is to determine the witness's level and then meet him on it. We certainly can not succeed, in the short time allowed us, to raise him to ours. ``The object of instruction" (says Lange[3]) ``is to endow the pupil with more apperceptive capacity, i. e., to

[1] Pathological conditions, if at all distinct, are easily recognizable, but there is a very broad and fully occupied border country between pathological and normal conditions. (Cf. O. Gross: Die Affeklage der Ablehnung. Monatschrift f<u:>r Psychiatrie u. Neurologie, 1902, XII, 359.)

[2] Fr<o:>bel: Die. Mensehenersiehung. Keilhau 1826.

[3] K. Lange: <U:>ber Apperzeption. Plauen 1889.

<p 21> make him intellectually free. It is therefore necessary to discover his `funded thoughts,' and to beware of expounding too much." This is not a little true. The development of apperceptive capacity is not so difficult for us, inasmuch as our problem is not to prepare our subject for life, but for one present purpose. If we desire, to this end, to make one more intellectually free, we have only to get him to consider with independence the matter with which we are concerned, to keep him free of all alien suggestions and inferences, and to compel him to see the case as if no influences, personal or circumstantial, had been at work on him. This result does not require merely the setting aside of special influences, nor the setting aside of all that others have said to

him on the matter under discussion, nor the elucidation of the effect of fear,[1] of anger, of all such states of mind as might here have been operative,−−it requires the establishment of his unbiased vision of the subject from a period antecedent to these above−mentioned influences. Opinions, valuations, prejudices, superstitions, etc., may here be to a high degree factors of disturbance and confusion. Only when the whole Augean stable is swept out may the man be supposed capable of apperception, may the thing he is to tell us be brought to bear upon him and he be permitted to reproduce it.

This necessary preliminary is not so difficult if the second of the above−mentioned rules is observed and the ``funded thought'' of the witness is studied out. It may be said, indeed, that so long as two people converse, unaware of each other's ``funded thought,'' they speak different languages. Some of the most striking misunderstandings come from just this reason. It is not alone a matter of varying verbal values, leading to incompatible inferences; actually the whole of a man's mind is involved. It is generally supposed to be enough to know the meaning of the words necessary for telling a story. But such knowledge leads only to external and very superficial comprehension; real clearness can be attained only by knowing the witness's habits of thought in regard to all the circumstances of the case. I remember vividly a case of jealous murder in which the most important witness was the victim's brother, an honest, simple, woodsman, brought up in the wilderness, and in every sense far− removed from idiocy. His testimony was brief, decided and intelligent. When the motive for the murder, in this case most important, came under discussion, he shrugged his shoulders and answered my question−−whether it was not committed on account of

[1] Dichl in H. Gross's Arehiv, XI, 240.

<p 22> a girl−−with, ``Yes, so they say.'' On further examination I reached the astonishing discovery that not only the word ``jealousy,'' but the very notion and comprehension of it were totally foreign to the man. The single girl he at one time thought of was won away from him without making him quarrelsome, nobody had ever told him of the pangs and passions of other people, he had had no occasion to consider the theoretic possibility of such a thing, and so ``jealousy'' remained utterly foreign to him. It is clear that his hearing now took quite another turn. All I thought I heard from him was essentially wrong; his ``funded thought'' concerning a very important, in this case a regulative concept, had been too poor.

The discovery of the ``funded thought'' is indubitably not easy. But its objective possibility with witness and accused is at least a fact. It is excluded only where it is most obviously necessary−− in the case of the jury, and the impossibility in this case turns the institution of trial by jury into a Utopian dream. The presiding officer of a jury court is in the best instances acquainted with a few of the jurymen, but never so far as to have been entrusted with their ``funded thought.'' Now and then, when a juryman asks a question, one gets a glimpse of it, and when the public prosecutor and the attorney for the defence make their speeches one catches something from the jury's expressions; and then it is generally too late. Even if it be discovered earlier nothing can be done with it. Some success is likely in the case of single individuals, but it is simply impossible to define the mental habits of twelve men with whom one has no particular relations.

The third part of the Fr<o:>belian rule, ``To presuppose as little as possible,'' must be rigidly adhered to. I do not say this pessimistically, but simply because we lawyers, through endless practice, arrange the issue so much more easily, conceive its history better and know what to exclude and what, with some degree of certainty, to retain. In consequence we often forget our powers and present the unskilled laity, even when persons of education, too much of the material. Then it must be considered that most witnesses are uneducated, that we can not actually descend to their level, and their unhappiness under a flood of strange material we can grasp only with difficulty. Because we do not know the witness's point of view we ask too much of him, and therefore fail in our purpose. And if, in some exceptional case, an educated man is on the stand, we fail again, since, having the habit of dealing with the uneducated, <p 23> we suppose this man to know our own specialties because he has a little education. Experience does not dispel this illusion. Whether actual training in another direction dulls the natural and free outlook we desire in the witness, or whether, in our profession, education presupposes tendencies too ideal, whatever be the reasons, it is a fact that our

hardest work is generally with the most highly educated witnesses. I once had to write a protocol based on the testimony of a famous scholar who was witness in a small affair. It was a slow job. Either he did not like the terms as I dictated them, or he was doubtful of the complete certainty of this or that assertion. Let alone that I wasted an hour or two, that protocol, though rewritten, was full of corrections and erasures. And the thing turned out to be nonsense at the end. The beginning contradicted the conclusion; it was unintelligible, and still worse, untrue. As became manifest later, through the indubitable testimony of many witnesses, the scholar had been so conscientious, careful and accurate that he simply did not know what he had seen. His testimony was worthless. I have had such experiences repeatedly and others have confessed them. To the question: Where not presuppose too much? the answer is: everywhere. First of all, little must be presupposed concerning people's powers of observation. They claim to have heard, seen or felt so and so, and they have not seen, heard, or felt it at all, or quite differently. They assent vigorously that they have grasped, touched, counted or examined something, and on closer examination it is demonstrated that it was only a passing glance they threw on it. And it is still worse where something more than ordinary perception is being considered, when exceptionally keen senses or information are necessary. People trust the conventional and when close observation is required often lack the knowledge proper to their particular status. In this way, by presupposing especial professional knowledge in a given witness, great mistakes are made. Generally he hasn't such knowledge, or has not made any particular use of it.

In the same way too much attention and interest are often presupposed, only to lead later to the astonishing discovery of how little attention men really pay to their own affairs. Still less, therefore, ought knowledge in less personal things be presupposed, for in the matter of real understanding, the ignorance of men far exceeds all presuppositions. Most people know the looks of all sorts of things, and think they know their essences, and when questioned, invariably assert it, quite in good faith. But if you depend <p 24> on such knowledge bad results arise that are all the more dangerous because there is rarely later opportunity to recognize their badness.

As often as any new matter is discussed with a witness, it is necessary, before all, to find out his general knowledge of it, what he considers it to be, and what ideas he connects with it. If you judge that he knows nothing about it and appraise his questions and conclusions accordingly, you will at least not go wrong in the matter, and all in all attain your end most swiftly.

At the same time it is necessary to proceed as slowly as possible. It is Carus[1] who points out that a scholar ought not to be shown any object unless he can not discover it or its like for himself. Each power must have developed before it can be used. Difficult as this procedure generally is, it is necessary in the teaching of children, and is there successful. It is a form of education by examples. The child is taught to assimilate to its past experience the new fact, e. g.: in a comparison of some keen suffering of the child with that it made an animal suffer. Such parallels rarely fail, whether in the education of children or of witnesses. The lengthy description of an event in which, e. g., somebody is manhandled, may become quite different if the witness is brought to recall his own experience. At first he speaks of the event as perhaps a ``splendid joke,'' but as soon as he is brought to speak of a similar situation of his own, and the two stories are set side by side, his description alters. This exemplification may be varied in many directions and is always useful. It is applicable even to accused, inasmuch as the performer himself begins to understand his deed, when it can be attached to his fully familiar inner life.

The greatest skill in this matter may be exercised in the case of the jury. Connect the present new facts with similar ones they already know and so make the matter intelligible to them. The difficulty here, is again the fact that the jury is composed of strangers and twelve in number. Finding instances familiar to them all and familiar in such wise that they may easily link them with the case under consideration, is a rare event. If it does happen the success is both significant and happy.

It is not, however, sufficient to seek out a familiar case analogous to that under consideration. The analogy should be discovered for each event, each motive, each opinion, each reaction, each appearance, if people are

to understand and follow the case. Ideas, like

[1] Carus: Psychologie. Leipzig 1823.

<p 25> men, have an ancestry, and a knowledge of the ancestors leads to a discovery of the cousins.

Section 7. (e) Egoism.

It is possible that the inner character of egoism shall be as profoundly potent in legal matters as in the daily life. Goethe has experienced its effect with unparalleled keenness. ``Let me tell you something," he writes (Conversations with Eckermann. Vol. 1). ``All periods considered regressive or transitional are subjective. Conversely all progressive periods look outward. The whole of contemporary civilization is reactionary, because subjective.... The thing of importance is everywhere the individual who is trying to show off his lordliness. Nowhere is any mentionable effort to be found that subordinates itself through love of the whole."

These unmistakable terms contain a ``discovery" that is applicable to our days even better than to Goethe's. *It is characteristic of our time that each man has an exaggerated interest in himself*. Consequently, he is concerned only with himself or with his immediate environment, he understands only what he already knows and feels, and he works only where he can attain some personal advantage. It is hence to be concluded that we may proceed with certainty only when we count on this exaggerated egoism and use it as a prime factor. The most insignificant little things attest this. A man who gets a printed directory will look his own name up, though he knows it is there, and contemplate it with pleasure; he does the same with the photograph of a group of which his worthy self is one of the immortalized. If personal qualities are under discussion, he is happy, when he can say,−−``Now I am by nature so."−− If foreign cities are under discussion, he tells stories of his native city, or of cities that he has visited, and concerning things that can interest only him who has been there. Everyone makes an effort to bring something of his personal status to bear,−−either the conditions of his life, or matters concerning only him. If anybody announces that he has had a good time, he means without exception, absolutely without exception, that he has had an opportunity to push his ``I" very forcefully into the foreground.

Lazarus[1] has rightly given this human quality historical significance: ``Pericles owed a considerable part of his political dictatorate to the circumstance of knowing practically all Athenian citizens by name. Hannibal, Wallenstein, Napoleon I, infected

[1] M. Lazarus: Das Leben der Seele. Berlin 1856.

<p 26> their armies, thanks to ambition, with more courage than could the deepest love of arms, country and freedom, just through knowing and calling by name the individual soldiers."

Daily we get small examples of this egoism. The most disgusting and boresome witness, who is perhaps angry at having been dragged so far from his work, can be rendered valuable and useful through the initial show of a little _*personal_ interest, of some comprehension of his affairs, and of some consideration, wherever possible, of his views and efficiency. Moreover, men judge their fellows according to their comprehension of their own particular professions. The story of the peasant's sneer at a physician, ``But what can he know when he does not even know how to sow oats?" is more than a story, and is true of others besides illiterate boors. Such an attitude recurs very frequently, particularly among people of engrossing trades that require much time,−−e. g., among soldiers, horsemen, sailors, hunters, etc. If it is not possible to understand these human vanities and to deal with these people as one of the trade, it is wise at least to suggest such understanding, to show interest in their affairs and to let them believe that really you think it needful for everybody to know how to saddle a horse correctly, or to distinguish the German bird−dog from the English setter at a thousand paces. What is aimed at is not personal respect for the judge, but for the judge's function, which the witness identifies with the judge's person. If he has such respect, he will find it worth the trouble to help us out, to

think carefully and to assist in the difficult conclusion of the case. There is an astonishing difference between the contribution of a sulking and contrary witness and of one who has become interested and pleased by the affair. Not only quantity, but truth and reliability of testimony, are immensely greater in the latter case.

Besides, the antecedent self−love goes so far that it may become very important in the examination of the accused. Not that a trap is to be set for him; merely that since it is our business to get at the truth, we ought to proceed in such proper wise with a denying accused as might bring to light facts that otherwise careful manipulation would not have brought out. How often have anonymous or pseudonymous criminals betrayed themselves under examination just because they spoke of circumstances involving their capital _*I_, and spoke so clearly that now the clue was found, it was no longer difficult to follow it up. In the examination of well−known criminals, dozens of such instances occur−−the fact is not new, but it needs to be made use of. <p 27>

A similar motive belongs to subordinate forms of egoism−− the obstinacy of a man who may be so vexed by contradiction as to drive one into despair, and who under proper treatment becomes valuable. This I learned mainly from my old butler, a magnificent honest soldier, a figure out of a comedy, but endowed with inexorable obstinacy against which my skill for a long time availed nothing. As often as I proposed something with regard to some intended piece of work or alteration, I got the identical reply−−``It won't do, sir." Finally I got hold of a list and worked my plan−−``Simon, this will now be done as Simon recently said it should be done,−− namely." At this he looked at me, tried to think when he had said this thing, and went and did it. And in spite of frequent application this list has not failed once for some years. What is best about it is that it will serve, mutatis mutandis, with criminals. As soon as ever real balkiness is noted, it becomes necessary to avoid the least appearance of contradictoriness, since that increases difficulties. It is not necessary to lie or to make use of trickery. Only, avoid direct contradiction, drop the subject in question, and return to it indirectly when you perceive that the obstinate individual recognizes his error. Then you may succeed in building him a golden bridge, or at least a barely visible sidedoor where he can make his retreat unnoticed. In that case even the most difficult of obstinates will no longer repeat the old story. He will repeat only if he is pressed, and this although he is repeatedly brought back to the point. If, however, the matter is once decided, beware of returning to it without any other reason, save to confirm the settled matter quite completely,−−that would be only to wake the sleeper to give him a sleeping powder.

Speaking generally, the significant rule is this: _Egoism, laziness and conceit are the only human motives on which one may unconditionally depend_. Love, loyalty, honesty, religion and patriotism, though firm as a rock, may lapse and fall. A man might have been counted on for one of these qualities ten times with safety, and on the eleventh, he might collapse like a house of cards. Count on egoism and laziness a hundred or a thousand times and they are as firm as ever. More simply, count on egoism−−for laziness and conceit are only modifications of egoism. The latter alone then should be the one human motive to keep in mind when dealing with men. There are cases enough when all the wheels are set in motion after a clue to the truth, i. e., when there is danger that the person under suspicion is innocent; appeals to honor, conscience, humanity and <p 28> religion fail;−−but run the complete gamut of self−love and the whole truth rings clear. Egoism is the best criterion of the presence of veracity. Suppose a coherent explanation has been painfully constructed. It is obvious that the correctness of the construction is studied with reference to the given motive. Now, if the links in the chain reach easily back to the motive, there is at least the possibility that the chain is free of error. What then of the motive? If it is noble−−friendship, love, humaneness, loyalty, mercy−−the constructed chain may be correct, and happily is so oftener than is thought; but it _*need not_ be correct. If, however, the structure rests on egoism, in any of its innumerable forms? and if it is logically sound, then the whole case is explained utterly and reliably. The construction is indubitably correct.

Section 8. (f) Secrets.

The determination of the truth at law would succeed much less frequently than it does if it were not for the fact that men find it very difficult to keep secrets. This essentially notable and not clearly understood

circumstance is popularly familiar. Proverbs of all people deal with it and point mainly to the fact that keeping secrets is especially difficult for women. The Italians say a woman who may not speak is in danger of bursting; the Germans, that the burden of secrecy affects her health and ages her prematurely; the English say similar things still more coarsely. Classical proverbs have dealt with the issue; numberless fairy tales, narratives, novels and poems have portrayed the difficulty of silence, and one very fine modern novel (Die Last des Schweigens, by Ferdinand K<u:>rnberger) has chosen this fact for its principal motive. The universal difficulty of keeping silence is expressed by Lotze[1] in the dictum that we learn expression very young and silence very late. The fact is of use to the criminalist not only in regard to criminals, but also with regard to witnesses, who, for one reason or another, want to keep something back. The latter is the source of a good deal of danger, inasmuch as the witness is compelled to speak and circles around the secret in question without touching it, until he points it out and half reveals it. If he stops there, the matter requires consideration, for ``a half truth is worse than a whole lie." The latter reveals its subject and intent and permits of defence, while the half truth may, by association and circumscriptive limitations, cause vexatious errors both as regards the identity of the semi−accused

[1] Lotze: Der Instinkt. Kleine Schriften. Leipzig 1885.

<p 29> and as regards the circumstances with which he is thus involved. For this reason the criminalist must consider the question of secrets carefully.

As for his own silence, this must be considered in both directions That he is not to blab official secrets is so obvious that it need not be spoken of. Such blabbing is so negligent and dishonorable that we must consider it intrinsically impossible. But it not infrequently happens that some indications are dropped or persuaded out of a criminal Judge, generally out of one of the younger and more eager men. They mention only the event itself, and not a name, nor a place, nor a particular time, nor some even more intimate matter−− there seems no harm done. And yet the most important points have often been blabbed of in just such a way. And what is worst of all, just because the speaker has not known the name nor anything else concrete, the issue may be diverted and enmesh some guiltless person. It is worth considering that the effort above mentioned is made only in the most interesting cases, that crimes especially move people to disgusting interest, due to the fact that there is a more varied approach to synthesis of a case when the same story is repeated several times or by various witnesses. For by such means extrapolations and combinations of the material are made possible. By way of warning, let me remind you of an ancient and much quoted anecdote, first brought to light by Boccaccio: A young and much loved abb<e'> was teased by a bevy of ladies to narrate what had happened in the first confession he had experienced. After long hesitation the young fellow decided that it was no sin to relate the confessed sin if he suppressed the name of the confessor, and so he told the ladies that his first confession was of infidelity. A few minutes later a couple of tardy guests appeared,−−a marquis and his charming wife. Both reproached the young priest for his infrequent visits at their home. The marquise exclaimed so that everybody heard, ``It is not nice of you to neglect me, your first confess<e'>e." This squib is very significant for our profession, for it is well known how, in the same way, ``bare facts," as ``completely safe," are carried further. The listener does not have to combine them, the facts combine themselves by means of others otherwise acquired, and finally the most important official matters, on the concealment of which much may perhaps have depended, become universally known. Official secrets have a general significance, and must therefore be guarded at all points and not merely in detail.

The second direction in which the criminal justice must maintain <p 30> silence looks toward witnesses and accused. If, in the first instance, the cause of too much communicativeness was an over−proneness to talk; its cause in this case is a certain conceit that teases one into talking. Whether the justice wants to show the accused how much he already knows or how correctly he has drawn his conclusions; whether he wishes to impress the witness by his confidences, he may do equally as much harm in one case as in the other. Any success is made especially impossible if the judge has been in too much of a hurry and tried to show himself fully informed at the very beginning, but has brought out instead some error. The accused naturally leaves him with his false suppositions, they suggest things to the witness−−and what follows may be easily considered.

Correct procedure in such circumstances is difficult. Never to reveal what is already known, is to deprive oneself of one of the most important means of examination; use of it therefore ought not to be belated. But it is much worse to be premature or garrulous. In my own experience, I have never been sorry for keeping silence, especially if I had already said something. The only rule in the matter is comparatively self−evident. Never move toward any incorrectness and never present the appearance of knowing more than you actually do. Setting aside the dishonesty of such a procedure, the danger of a painful exposure in such matters is great.

There is still another great danger which one may beware of, optima fide,−−the danger of knowing something untrue. This danger also is greatest for the greatest talent and the greatest courage among us, because they are the readiest hands at synthesis, inference, and definition of possibilities, and see as indubitable and shut to contradiction things that at best are mere possibilities. It is indifferent to the outcome whether a lie has been told purposely or whether it has been the mere honest explosion of an over−sanguine temperament. It is therefore unnecessary to point out the occasion for caution. One need only suggest that something may be learned from people who talk too much. The over−communicativeness of a neighbor is quickly noticeable, and if the _*why_ and _*how much_ of it are carefully studied out, it is not difficult to draw a significant analogy for one's own case. In the matter of secrets of other people, obviously the thing to be established first is what is actually a secret; what is to be suppressed, if one is to avoid damage to self or another. When an actual secret is recognized it is necessary to consider whether the damage is greater through keeping or through revealing the secret. If it is still possible, it is well to let the secret <p 31> be−−there is always damage, and generally, not insignificant damage, when it is tortured out of a witness. If, however, one is honestly convinced that the secret must be revealed−−as when a guiltless person is endangered−−every effort and all skill is to be applied in the revelation. Inasmuch as the least echo of bad faith is here impossible, the job is never easy.

The chief rule is not to be overeager in getting at the desired secret. The more important it is, the less ought to be made of it. It is best not directly to lead for it. It will appear of itself, especially if it is important. Many a fact which the possessor had set no great store by, has been turned into a carefully guarded secret by means of the eagerness with which it was sought. In cases of need, when every other means has failed, it may not be too much to tell the witness, cautiously of course, rather more of the crime than might otherwise have seemed good. Then those episodes must be carefully hit on, which cluster about the desired secret and from which its importance arises. If the witness understands that he presents something really important by giving up his secret, surprising consequences ensue.

The relatively most important secret is that of one's own guilt, and the associated most suggestive establishment of it, the confession, is a very extraordinary psychological problem.[1] In many cases the reasons for confession are very obvious. The criminal sees that the evidence is so complete that he is soon to be convicted and seeks a mitigation of the sentence by confession, or he hopes through a more honest narration of the crime to throw a great degree of the guilt on another. In addition there is a thread of vanity in confession−−as among young peasants who confess to a greater share in a burglary than they actually had (easily discoverable by the magniloquent manner of describing their actual crime). Then there are confessions made for the sake of care and winter lodgings: the confession arising from ``firm conviction'' (as among political criminals and others). There are even confessions arising from nobility, from the wish to save an intimate, and confessions intended to deceive, and such as occur especially in conspiracy and are made to gain time (either for the flight of the real criminal or for the destruction of compromising objects). Generally, in the latter case, guilt is admitted only until the plan for which it was made has succeeded; then the judge is surprised with well−

[1] Cf. Lohsing: ``Confession'' in Gross's Archiv, IV, 23, and Hausner: *ibid*. XIII, 267.

<p 32> founded, regular and successful establishment of an alibi. Not infrequently confession of small crimes is made to establish an alibi for a greater one. And finally there are the confessions Catholics[1] are required to make in confessional, and the death bed confessions. The first are distinguished by the fact that they are

made freely and that the confessee does not try to mitigate his crime, but is aiming to make amends, even when he finds it hard; and desires even a definite penance. Death bed confessions may indeed have religious grounds, or the desire to prevent the punishment or the further punishment of an innocent person.

Although this list of explicable confession−types is long, it is in no way exhaustive. It is only a small portion of all the confessions that we receive; of these the greater part remain more or less unexplained. Mittermaier[2] has already dealt with these acutely and cites examples as well as the relatively well−studied older literature of the subject. A number of cases may perhaps be explained through pressure of conscience, especially where there are involved hysterical or nervous persons who are plagued with vengeful images in which the ghost of their victim would appear, or in whose ear the unendurable clang of the stolen money never ceases, etc. If the confessor only intends to free himself from these disturbing images and the consequent punishment by means of confession, we are not dealing with what is properly called conscience, but more or less with disease, with an abnormally excited imagination.[3] But where such hallucinations are lacking, and religious influences are absent, and the confession is made freely in response to mere pressure, we have a case of conscience,[4]−−another of those terms which need explanation. I know of no analogy in the inner nature of man, in which anybody with open eyes does himself exclusive harm without any contingent use being apparent, as is the case in this class of confession. There is always considerable difficulty in explaining these cases. One way of explaining them is to say that their source is mere stupidity

[1] Cf. the extraordinary confession of the wife of the ``cannibal'' Bratuscha. The latter had confessed to having stifled his twelve year old daughter, burned and part by part consumed her. He said his wife was his accomplice. The woman denied it at first but after going to confession told the judge the same story as her husband. It turned out that the priest had refused her absolution until she ``confessed the truth.'' But both she and her husband had confessed falsely. The child was alive. Her father's confession was pathologically caused, her mother's by her desire for absolution.

[2] C. J. A. Mittermaier: Die Lehre vom Beweise im deutsehen Strafprozess. Darmstadt 1834.

[3] Poe calls such confessions pure perversities.

[4] Cf. Elsenshaus: Wesen u. Entstehung des Gewissens. Leipzig 1894.

<p 33> and impulsiveness, or simply to deny their occurrence. But the theory of stupidity does not appeal to the practitioner, for even if we agree that a man foolishly makes a confession and later, when he perceives his mistake, bitterly regrets telling it, we still find many confessions that are not regretted and the makers of which can in no wise be accused of defective intelligence. To deny that there are such is comfortable but wrong, because we each know collections of cases in which no effort could bring to light a motive for the confession. The confession was made because the confessor wanted to make it, and that's the whole story.

The making of a confession, according to laymen, ends the matter, but really, the judge's work begins with it. As a matter of caution all statutes approve confessions as evidence only when they agree completely with the other evidence. Confession is a means of proof, and not proof. Some objective, evidentially concurrent support and confirmation of the confession is required. But the same legal requirement necessitates that the value of the concurrent evidence shall depend on its having been arrived at and established independently. The existence of a confession contains powerful suggestive influences for judge, witness, expert, for all concerned in the case. If a confession is made, all that is perceived in the case may be seen in the light of it, and experience teaches well enough how that alters the situation. There is so strong an inclination to pigeonhole and adapt everything perceived in some given explanation, that the explanation is strained after, and facts are squeezed and trimmed until they fit easily. It is a remarkable phenomenon, confirmable by all observers, that all our perceptions are at first soft and plastic and easily take form according to the shape of their predecessors. They become stiff and inflexible only when we have had them for some time, and have permitted them to reach an equilibrium. If, then, observations are made in accord with certain notions, the

plastic material is easily molded, excrescences and unevenness are squeezed away, lacun<ae> are filled up, and if it is at all possible, the adaptation is completed easily. Then, if a new and quite different notion arises in us, the alteration of the observed material occurs as easily again, and only long afterwards, when the observation has hardened, do fresh alterations fail. This is a matter of daily experience, in our professional as well as in our ordinary affairs. We hear of a certain crime and consider the earliest data. For one reason or another we begin to suspect A as the criminal The result of an examination of the premises is applied in each detail <p 34> to this proposition. It fits. So does the autopsy, so do the depositions of the witnesses. Everything fits. There have indeed been difficulties, but they have been set aside, they are attributed to inaccurate observation and the like,−−the point is,−−that the evidence is against A. Now, suppose that soon after B confesses the crime; this event is so significant that it sets aside at once all the earlier reasons for suspecting A, and the theory of the crime involves B. Naturally the whole material must now be applied to B, and in spite of the fact that it at first fitted A, it does now fit B. Here again difficulties arise, but they are to be set aside just as before.

Now if this is possible with evidence, written and thereby unalterable, how much more easily can it be done with testimony about to be taken, which may readily be colored by the already presented confession. The educational conditions involve now the judge and his assistants on the one hand, and the witnesses on the other.

Concerning himself, the judge must continually remember that his business is not to fit all testimony to the already furnished confession, allowing the evidence to serve as mere decoration to the latter, but that it is his business to establish his proof by means of the confession, and by means of the other evidence, _*independently_. The legislators of contemporary civilization have started with the proper presupposition−−that also false confessions are made,−− and who of us has not heard such? Confessions, for whatever reason,−−because the confessor wants to die, because he is diseased,[1] because he wants to free the real criminal,−−can be discovered as false only by showing their contradiction with the other evidence. If, however, the judge only fits the evidence, he abandons this means of getting the truth. Nor must false confessions be supposed to occur only in case of homicide. They occur most numerously in cases of importance, where more than one person is involved. It happens, perhaps, that only one or two are captured, and they assume all the guilt, e. g., in cases of larceny, brawls, rioting, etc. I repeat: the suggestive power of a confession is great and it is hence really not easy to exclude its influence and to consider the balance of the evidence on its merits,−−but this must be done if one is not to deceive oneself.

Dealing with the witness is still more ticklish, inasmuch as to the difficulties with them, is added the difficulties with oneself. The simplest thing would be to deny the existence of a confession, and

[1] Cf. above, the case of the ``cannibal'' Bratuscha.

<p 35> thus to get the witness to speak without prejudice. But aside from the fact of its impossibility as a lie, each examination of a witness would have to be a comedy and that would in many cases be impossible as the witness might already know that the accused had confessed. The only thing to be done, especially when it is permissible for other reasons, is to tell the witness that a confession exists and to call to his attention that it is _*not_ yet evidence, and finally and above all to keep one's head and to prevent the witness from presenting his evidence from the point of view of the already−established. In this regard it can not be sufficiently demonstrated that the coloring of a true bill comes much less from the witness than from the judge. The most excited witness can be brought by the judge to a sober and useful point of view, and conversely, the most calm witness may utter the most misleading testimony if the judge abandons in any way the safe bottom of the indubitably established fact.

Very intelligent witnesses (they are not confined to the educated classes) may be dealt with constructively and be told after their depositions that the case is to be considered as if there were no confession whatever. There is an astonishing number of people−− especially among the peasants−−who are amenable to such

considerations and willingly follow if they are led on with confidence. In such a case it is necessary to analyze the testimony into its elements. This analysis is most difficult and important since it must be determined what, taken in itself, is an element, materially, not formally, and what merely appears to be a unit. Suppose that during a great brawl a man was stabbed and that A confesses to the stabbing. Now a witness testified that A had first uttered a threat, then had jumped into the brawl, felt in his bag, and left the crowd, and that in the interval between A's entering and leaving, the stabbing occurred. In this simple case the various incidents must be evaluated, and each must be considered by itself. So we consider−−Suppose A had not confessed, what would the threat have counted for? Might it not have been meant for the assailants of the injured man? May his feeling in the bag not be interpreted in another fashion? Must he have felt for a knife only? Was there time enough to open it and to stab? Might the man not have been already wounded by that time? We might then conclude that all the evidence about A contained nothing against him−−but if we relate it to the confession, then this evidence is almost equal to direct evidence of A's crime. <p 36>

But if individual sense−perceptions are mingled with conclusions, and if other equivalent perceptions have to be considered, which occurred perhaps to other people, then the analysis is hardly so simple, yet it must be made.

In dealing with less intelligent people, with whom this construction cannot be performed, one must be satisfied with general rules. By demanding complete accuracy and insisting, in any event, on the ratio sciendi, one may generally succeed in turning a perception, uncertain with regard to any individual, into a trustworthy one with regard to the confessor. It happens comparatively seldom that untrue confessions are discovered, but once this does occur, and the trouble is taken to subject the given evidence to a critical comparison, the manner of adaptation of the evidence to the confession may easily be discovered. The witnesses were altogether unwilling to tell any falsehood and the judge was equally eager to establish the truth, nevertheless the issue must have received considerable perversion in order to fix the guilt on the confessor. Such examinations are so instructive that the opportunity to make them should never be missed. All the testimony presents a typical picture. The evidence is consistent with the theory that the real confessor was guilty, but it is also consistent with the theory that the real criminal was guilty, but some details must be altered, often very many. If there is an opportunity to hear the same witnesses again, the procedure becomes still more instructive. The witnesses (supposing they want honestly to tell the truth) naturally confirm the evidence as it points to the second, more real criminal, and if an explanation is asked for the statements that pointed to the ``confessor,'' the answers make it indubitably evident, that their incorrectness came as without intention; the circumstance that a confession had been made acted as a suggestion.[1]

Conditions similar to confessional circumstances arise when other types of persuasive evidence are gathered, which have the same impressive influence as confessions. In such cases the judge's task is easier than the witness's, since he need not tell them of evidence already at hand. How very much people allow themselves to be influenced by antecedent grounds of suspicion is a matter of daily observation. One example will suffice. An intelligent man was attacked at night and wounded. On the basis of his description

[1] We must not overlook those cases in which false confessions are the results of disease, vivid dreams, and toxications, especially toxication by coal−gas. People so poisoned, but saved from death, claim frequently to have been guilty of murder (Hofman. Gerichtliche Medizin, p. 676).

<p 37> an individual was arrested. On the next day the suspect was brought before the man for identification. He identified the man with certainty, but inasmuch as his description did not quite hit off the suspect he was asked the reason for his certainty. ``Oh, you certainly would not have brought him here if he were not the right man,'' was the astonishing reply. Simply because the suspect was arrested on the story of the wounded man and brought before him in prison garb, the latter thought he saw such corroboration for his data as to make the identification certain−−a pure <gr usteron prwteron> which did not at all occur to him in connection with the vivid impression of what he saw. I believe that to keep going with merely what the criminalist knows about the matter, belongs to his most difficult tasks.

Section 9. (g) Interest.

Anybody who means to work honestly must strive to awaken and to sustain the interest of his collaborators. A judge's duty is to present his associates material, well−arranged, systematic, and exhaustive, but not redundant; and to be himself well and minutely informed concerning the case. Whoever so proceeds may be certain in even the most ordinary and simplest cases, of the interest of his colleagues,−−hence of their attention; and, in consequence, of the best in their power. These are essentially self−evident propositions. In certain situations, however, more is asked with regard to the experts. The expert, whether a very modest workman or very renowned scholar, must in the first instance become convinced of the judge's complete interest in his work; of the judge's power to value the effort and knowledge it requires; of the fact that he does not question and listen merely because the law requires it, and finally of the fact that the judge is endowed, so far as may be, with a definite comprehension of the expert's task.

However conscientiously and intensely the expert may apply himself to his problem, it will be impossible to work at it with real interest if he finds no co−operation, no interest, and no understanding among those for whom he, at least formally, is at work. We may be certain that the paucity of respect we get from the scientific representatives of other disciplines (let us be honest,−−such is the case) comes particularly from those relations we have with them as experts, relations in which they find us so unintelligent and so indifferent with regard to matters of importance. If the experts <p 38> speak of us with small respect and the attitude spreads and becomes general, we get only our full due. Nobody can require of a criminal judge profound knowledge of all other disciplines besides his own−− the experts supply that−−but the judge certainly must have some insight into them in so far as they affect his own work, if he is not to meet the expert unintelligent and unintelligible, and if he is to co−operate with and succeed in appraising the expert's work. In a like fashion the judge may be required to take interest in the experts' result. If the judge receives their report and sticks to the statutes, if he never shows that he was anxious about their verdict, and merely views it as a number, it is no wonder that in the end the expert also regards his work as a mere number, and loses interest. No man is interested in a thing unless it is made interesting, and the expert is no exception. Naturally no one would say that the judge should pretend interest,−−that would be worst of all;−−he must be possessed of it, or he will not do for a judge. But interest may be intensified and vitalized. If the judge perceives that the finding of the experts is very important for his case he must at least meet them with interest in it. If that is present he will read their reports attentively, will note that he does not understand some things and ask the experts for elucidation. One question gives rise to another, one answer after another causes understanding, and understanding implies an ever−increasing interest. It never happens that there should be difficulties because of a request to judicial experts to explain things to the judge. I have never met any in my own practice and have never heard any complaints. On the contrary, pleasure and efficiency are generally noticeable in such connections, and the state, above all, is the gainer. The simple explanation lies here in the fact that the expert is interested in his profession, interested in just that concrete way in which the incomparably greater number of jurists are _*not_. And this again is based upon a sad fact, for us. The chemist, the physician, etc., studies his subject because he wants to become a chemist, physician, etc., but the lawyer studies law not because he wants to become a lawyer, but because he wants to become an official, and as he has no especial interest he chooses his state position in that branch in which he thinks he has the best prospects. It is a bitter truth and a general rule−−that those who want to study law and the science of law are the exceptions, and that hence we have to acquire a real interest in our subject from laymen, from our experts. But the interest can be acquired, and with the growth of interest, there is growth of <p 39> knowledge, and therewith increase of pleasure in the work itself and hence success.

The most difficult problem in interest, is arousing the interest of witnesses−−because this is purely a matter of training. Receiving the attention is what should be aimed at in rousing interest, inasmuch as full attention leads to correct testimony−−i. e., to the thing most important to our tasks. ``No interest, no attention," says Volkmar.[1] ``The absolutely new does not stimulate; what narrows appreciation, narrows attention also." The significant thing for us is that ``the absolutely new does not stimulate"−− a matter often overlooked. If I tell an uneducated man, with all signs of astonishment, that the missing books of Tacitus' ``Annals" have been

discovered in Verona, or that a completely preserved Dinotherium has been cut out of the ice, or that the final explanation of the Martian canals has been made at Manora observatory,−− all this very interesting news will leave him quite cold; it is absolutely new to him, he does not know what it means or how to get hold of it, it offers him no matter of interest.[2] I should have a similar experience if, in the course of a trig case, I told a man, educated, but uninterested in the case, with joy, that I had finally discovered the important note on which the explanation of the events depended. I could not possibly expect interest, attention, and comprehension of a matter if my interlocutor knows nothing about the issue or the reason of the note's importance. And in spite of the fact that everything is natural and can be explained we have the same story every day. We put the witness a definite question that is of immense importance to us, who are fully acquainted with the problem, but is for the witness detached, incoherent, and therefore barren of interest. Then who can require of an uninterested witness, attention, and effective and well−considered replies?[3] I myself heard a witness answer a judge who asked him about the weather on a certain day, ``Look here, to drag me so many miles to this place in order to discuss the weather with me,−−that's−−." The old man was quite right because the detached question had no particular purpose. But when it was circumstantially explained to him that the weather was of uttermost significance in this case, how it was related thereto, and how important his answer would be, he went at the question eagerly,

[1] v. Volkmar: Lehrbuch der Psychologie. Cothen 1875

[2] K. Haselbrunner: Die Lehre von der Aufmerkeamkeit Vienna 1901.

[3] E. Wiersma and K. Marbe: Untersuchungen <u:>ber die sogenannten Aufmerk− samkeitsschwankungen. Ztseh. f. Psych. XXVI, 168 (1901).

<p 40> and did everything thinkable in trying to recall the weather in question by bringing to bear various associated events, and did finally make a decidedly valuable addition to the evidence. And this is the only way to capture the attention of a witness. If he is merely ordered to pay attention, the result is the same as if he were ordered to speak louder,−−he does it, in lucky cases, for a moment, and then goes on as before. Attention may be generated but not commanded, and may be generated successfully with everybody, and at all times, if only the proper method is hit upon. The first and absolute requirement is to have and to show the same interest oneself. For it is impossible to infect a man with interest when you have no interest to infect with. There is nothing more deadly or boresome than to see how witnesses are examined sleepily and with tedium, and how the witnesses, similarly infected, similarly answer. On the other hand, it is delightful to observe the surprising effect of questions asked and heard with interest. Then the sleepiest witnesses, even dull ones, wake up: the growth of their interest, and hence of their attention, may be followed step by step; they actually increase in knowledge and their statements gain in reliability. And this simply because they have seen the earnestness of the judge, the importance of the issue, the case, the weighty consequences of making a mistake, the gain in truth through watchfulness and effort, the avoidance of error through attention. In this way the most useful testimony can be obtained from witnesses who, in the beginning, showed only despairing prospects.

Now, if one is already himself endowed with keen interest and resolved to awaken the same in the witnesses, it is necessary carefully to consider the method of so doing and how much the witness is to be told of what has already been established, or merely been said and received as possibly valuable. On the one hand it is true that the witness can be roused to attention and to more certain and vigorous responses according to the quantity of detail told him.[1] On the other, caution and other considerations warn against telling an unknown witness, whose trustworthiness is not ascertained, delicate and important matters. It is especially difficult if the witness is to be told of presuppositions and combinations, or if he is to be shown how the case would alter with his own answer. The last especially has the effect of suggestion and must occur in particular and in general at those times alone when his statement,

[1] Slaughter: The Fluctuations of Attention. Am. Jour. of Psych. XII, 313 (1901).

<p 41> or some part of it, is apparently of small importance but actually of much. Often this importance can be made clear to the witness only by showing him that the difference in the effect of his testimony is pointed out to him because when he sees it he will find it worth while to exert himself and to consider carefully his answer. Any one of us may remember that a witness who was ready with a prompt, and to him an indifferent reply, started thinking and gave an essentially different answer, even contradictory to his first, when the meaning and the effect of what he might say was made clear to him.

How and when the witness is to be told things there is no rule for. The wise adjustment between saying enough to awaken interest and not too much to cause danger is a very important question of tact. Only one certain device may be recommended−−it is better to be careful with a witness during his preliminary examination and to keep back what is known or suspected; thus the attention and interest of the witness may perhaps be stimulated. If, however, it is believed that fuller information may increase and intensify the important factors under examination, the witness is to be recalled later, when it is safe, and his testimony is, under the new conditions of interest, to be corrected and rendered more useful. In this case, too, the key to success lies in increase of effort−−but that is true in all departments of law, and the interest of a witness is so important that it is worth the effort.

Topic III. PHENOMENOLOGY: STUDY OF THE OUTWARD EXPRESSION OF MENTAL STATES.

Section 10.

Phenomenology is in general the science of appearances. In our usage it is the systematic co−ordination of those outer symptoms occasioned by inner processes, and conversely, the inference from the symptoms to them. Broadly construed, this may be taken as the study of the habits and whole bearing of any individual. But essentially only those external manifestations can be considered that refer back to definite psychical conditions, so that our phenomenology may be defined as the semiotic of normal psychology. This science is legally of immense importance, but has not yet assumed the task of showing how unquestionable inferences may be drawn from an uncounted collection of outward appearances to inner processes. In addition, observations are not numerous <p 42> enough, far from accurate enough, and psychological research not advanced enough. What dangerous mistakes premature use of such things may lead to is evident in the teaching of the Italian positivistic school, which defines itself also as psychopathic semiotic. But if our phenomenology can only attempt to approximate the establishment of a science of symptoms, it may at least study critically the customary popular inferences from such symptoms and reduce exaggerated theories concerning the value of individual symptoms to a point of explanation and proof. It might seem that our present task is destructive, but it will be an achievement if we can show the way to later development of this science, and to have examined and set aside the useless material already to hand.

Section II. (a) General External Conditions.

``Every state of consciousness has its physical correlate,'' says Helmholtz,[1] and this proposition contains the all in all of our problem. Every mental event must have its corresponding physical event[2] in some form, and is therefore capable of being sensed, or known to be indicated by some trace. Identical inner states do not, of course, invariably have identical bodily concomitants, neither in all individuals alike, nor in the same individual at different times. Modern methods of generalization so invariably involve danger and incorrectness that one can not be too cautious in this matter. If generalization were permissible, psychical events would have to be at least as clear as physical processes, but that is not admissible for many reasons. First of all, physical concomitants are rarely direct and unmeditated expressions of a psychical instant (e. g., clenching a fist in threatening). Generally they stand in no causal relation, so that explanations drawn from physiological, anatomical, or even atavistic conditions are only approximate and hypothetical. In addition, accidental habits and inheritances exercise an influence which, although it does not alter the expression, has a moulding effect that in the course of time does finally so recast a very natural expression as to make it altogether unintelligible. The phenomena, moreover, are in most cases personal, so that each individual means

a new study. Again the phenomena rarely remain constant; e. g.: we call a thing habit,−−

[1] H. L. Helmholtz: <U:>ber die Weebselwirkungen der Naturkr<a:>fte. K<o:>nigsberg 1854.

[2] A. Lehmann: Die k<o:>rperliche <A:>usserungen psychologischer Zust<a:>nde. Leipsig Pt. I, 1899. Pt. II, 1901.

<p 43> we say, ``He has the habit of clutching his chin when he is embarrassed,"−− but that such habits change is well known. Furthermore, purely physiological conditions operate in many directions, (such as blushing, trembling, laughter,[1] weeping, stuttering, etc.), and finally, very few men want to show their minds openly to their friends, so that they see no reason for co−ordinating their symbolic bodily expressions. Nevertheless, they do so, and not since yesterday, but for thousands of years. Hence definite expressions have been transmitted for generations and have at the same time been constantly modified, until to−day they are altogether unrecognizable. Characteristically, the desire to fool others has also its predetermined limitations, so that it often happens that simple and significant gestures contradict words when the latter are false. E. g., you hear somebody say, ``She went down," but see him point at the same time, not clearly, but visibly, up. Here the speech was false and the gesture true. The speaker had to turn all his attention on what he wanted to say so that the unwatched co−consciousness moved his hand in some degree.

A remarkable case of this kind was that of a suspect of child murder. The girl told that she had given birth to the child all alone, had washed it, and then laid it on the bed beside herself. She had also observed how a corner of the coverlet had fallen on the child's face, and thought it might interfere with the child's breathing. But at this point she swooned, was unable to help the child, and it was choked. While sobbing and weeping as she was telling this story, she spread the fingers of her left hand and pressed it on her thigh, as perhaps she might have done, if she had first put something soft, the corner of a coverlet possibly, over the child's nose and mouth, and then pressed on it. This action was so clearly significant that it inevitably led to the question whether she hadn't choked the child in that way. She assented, sobbing.

Similar is another case in which a man assured us that he lived very peaceably with his neighbor and at the same time clenched his fist. The latter meant illwill toward the neighbor while the words did not.

It need not, of course, be urged that the certainty of a belief will be much endangered if too much value is sanguinely set on such and similar gestures, when their observation is not easy. There is enough to do in taking testimony, and enough to observe, to make it difficult to watch gestures too. Then there is danger (because of

[1] H. Bergson: Le Rire. Paris 1900.

<p 44> slight practice) of easily mistaking indifferent or habitual gestures for significant ones; of supposing oneself to have seen more than should have been seen, and of making such observations too noticeable, in which case the witness immediately controls his gestures. In short, there are difficulties, but once they are surmounted, the effort to do so is not regretted.

It is to be recommended here, also, not to begin one's studies with murder and robbery, but with the simple cases of the daily life, where there is no danger of making far−reaching mistakes, and where observations may be made much more calmly. Gestures are especially powerful habits and almost everybody makes them, mainly _*not_ indifferent ones. It is amusing to observe a man at the telephone, his free hand making the gestures for both. He clenches his fist threateningly, stretches one finger after another into the air if he is counting something, stamps his foot if he is angry, and puts his finger to his head if he does not understand−−in that he behaves as he would if his interlocutor were before him. Such deep−rooted tendencies to gesture hardly ever leave us. The movements also occur when we lie; and inasmuch as a man who is lying at the same time has the idea of the truth either directly or subconsciously before him, it is conceivable that

this idea exercises much greater influence on gesture than the probably transitory lie. The question, therefore, is one of intensity, for each gesture requires a powerful impulse and the more energetic is the one that succeeds in causing the gesture. According to Herbert Spencer[1] it is a general and important rule that any sensation which exceeds a definite intensity expresses itself ordinarily in activity of the body. This fact is the more important for us inasmuch as we rarely have to deal with light and with not deep−reaching and superficial sensations. In most cases the sensations in question ``exceed a certain intensity," so that we are able to perceive a bodily expression at least in the form of a gesture.

The old English physician, Charles Bell,[2] is of the opinion, in his cautious way, that what is called the external sign of passion is only the accompanying phenomenon of that spontaneous movement required by the structure, or better, by the situation of the body. Later this was demonstrated by Darwin and his friends to be the indubitable starting point of all gesticulation:−−so, for example,

[1] H. Spencer: Essays, Scientific, etc. 2d Series

[2] Charles Bell: The Anatomy and Philosophy of Expression. London 1806 and 1847.

<p 45> the defensive action upon hearing something disgusting, the clenching of the fists in anger; or among wild animals, the baring of the teeth, or the bull's dropping of the head, etc. In the course of time the various forms of action became largely unintelligible and significatory only after long experience. It became, moreover, differently differentiated with each individual, and hence still more difficult to understand. How far this differentiation may go when it has endured generation after generation and is at last crystallized into a set type, is well known; just as by training the muscles of porters, tumblers or fencers develop in each individual, so the muscles develop in those portions of our body most animated by the mind−−in our face and hands, especially, have there occurred through the centuries fixed expressions or types of movement. This has led to the observations of common−sense which speak of raw, animal, passionate or modest faces, and of ordinary, nervous, or spiritual hands; but it has also led to the scientific interpretation of these phenomena which afterwards went shipwreck in the form of Lombroso's ``criminal stigmata," inasmuch as an overhasty theory has been built on barren, unexperienced, and unstudied material. The notion of criminal stigmata is, however, in no sense new, and Lombroso has not invented it; according to an incidental remark of Kant in his ``Menschenkunde," the first who tried scientifically to interpret these otherwise ancient observations was the German J. B. Friedreich,[1] who says expressly that determinate somatic pathological phenomena may be shown to occur with certain moral perversions. It has been observed with approximate clearness in several types of cases. So, for example, incendiarism occurs in the case of abnormal sexual conditions; poisoning also springs from abnormal sexual impulses; drowning is the consequence of oversatiated drink mania, etc. Modern psychopathology knows nothing additional concerning these marvels; and similar matters which are spoken of nowadays again, have shown themselves incapable of demonstration. But that there are phenomena so related, and that their number is continually increasing under exact observations, is not open to doubt.[2] If we stop with the phenomena of daily life and keep in mind the ever−cited fact that everybody recognizes at a glance the old hunter, the retired officer, the actor, the aristocratic lady, etc., we may go still further: the more trained observers can recognize the merchant, the official, the butcher, the shoe−maker, the real

[1] J. B. Friedreich: System der Gericht. Psych.

[2] Cf. N<a:>cke in Gross's Archiv, I, 200, and IX, 253.

<p 46> tramp, the Greek, the sexual pervert, etc. Hence follows an important law−−_that if a fact is once recognized correctly in its coarser form, then the possibility must be granted that it is correct in its subtler manifestations_. The boundary between what is coarse and what is not may not be drawn at any particular point. It varies with the skill of the observer, with the character of the material before him, and with the excellence of his instruments, so that nobody can say where the possibility of progress in the matter ceases. Something must be granted in all questions appertaining to this subject of recognizable unit−characters and

every layman pursues daily certain activities based on their existence. When he speaks of stupid and intelligent faces he is a physiognomist; he sees that there are intellectual foreheads and microcephalic ones, and is thus a craniologist; he observes the expression of fear and of joy, and so observes the principles of imitation; he contemplates a fine and elegant hand in contrast with a fat and mean hand, and therefore assents to the effectiveness of chirognomy; he finds one hand−writing scholarly and fluid, another heavy, ornate and unpleasant; so he is dealing with the first principles of graphology;−−all these observations and inferences are nowhere denied, and nobody can say where their attainable boundaries lie.

Hence, the only proper point of view to take is that from which we set aside as too bold, all daring and undemonstrated assertions on these matters. But we will equally beware of asserting without further consideration that far−reaching statements are unjustified, for we shall get very far by the use of keener and more careful observation, richer material, and better instruments.

How fine, for example, are the observations made by Herbert Spencer concerning the importance of the ``timbre'' of speech in the light of the emotional state−−no one had ever thought of that before, or considered the possibilities of gaining anything of importance from this single datum which has since yielded such a rich collection of completely proved and correctly founded results. Darwin knew well enough to make use of it for his own purposes.[1] He points out that the person who is quietly complaining of bad treatment or is suffering a little, almost always speaks in a high tone of voice; and that deep groans or high and piercing shrieks indicate extreme pain. Now we lawyers can make just such observations in great number. Any one of us who has had a few experiences, can immediately recognize from the tone of voice with which a new

[1] C. Darwin: The Expression of the Emotions.

<p 47> comer makes his requests just about what he wants. The accused, for example, who by chance does not know why he has been called to court, makes use of a questioning tone without really pronouncing his question. Anybody who is seriously wounded, speaks hoarsely and abruptly. The secret tone of voice of the querulous, and of such people who speak evil of another when they are only half or not at all convinced of it, gives them away. The voice of a denying criminal has in hundreds of cases been proved through a large number of physiological phenomena to do the same thing for him; the stimulation of the nerves influences before all the characteristic snapping movement of the mouth which alternates with the reflex tendency to swallow. In addition it causes lapses in blood pressure and palpitation of the heart by means of disturbances of the heart action, and this shows clearly visible palpitation of the right carotid (well within the breadth of hand under the ear in the middle of the right side of the neck). That the left carotid does not show the palpitation may be based on the fact that the right stands in much more direct connection with the aorta. All this, taken together, causes that so significant, lightly vibrating, cold and toneless voice, which is so often to be perceived in criminals who deny their guilt. It rarely deceives the expert.

But these various timbres of the voice especially contain a not insignificant danger for the criminalist. Whoever once has devoted himself to the study of them trusts them altogether too easily, for even if he has identified them correctly hundreds of times, it still may happen that he is completely deceived by a voice he holds as ``characteristically demonstrative.'' That timbres may deceive, or simulations worthy of the name occur, I hardly believe. Such deceptions are often attempted and begun, but they demand the entire attention of the person who tries them, and that can be given for only a short time. In the very instant that the matter he is speaking of requires the attention of the speaker, his voice involuntarily falls into that tone demanded by its physical determinants: and the speaker significantly betrays himself through just this alteration. We may conclude that an effective simulation is hardly thinkable.

It must, however, be noticed that earlier mistaken observations and incorrect inference at the present moment−−substitutions and similar mistakes−−may easily mislead. As a corroborative fact, then, the judgment of a voice would have great value; but as a means in itself it is a thing too little studied and far from confirmed. <p 48>

There is, however, another aspect of the matter which manifests itself in an opposite way from voice and gesture. Lazarus calls attention to the fact that the spectators at a fencing match can not prevent themselves from imitative accompaniment of the actions of the fencers, and that anybody who happens to have any swinging object in his hand moves his hand here and there as they do. Stricker[1] makes similar observations concerning involuntary movements performed while looking at drilling or marching soldiers. Many other phenomena of the daily life−−as, for example, keeping step with some pedestrian near us, with the movement of a pitcher who with all sorts of twistings of his body wants to guide the ball correctly when it has already long ago left his hand; keeping time to music and accompanying the rhythm of a wagon knocking on cobblestones; even the enforcement of what is said through appropriate gestures when people speak vivaciously−−naturally belong to the same class. So do nodding the head in agreement and shaking it in denial; shrugging the shoulders with a declaration of ignorance. The expression by word of mouth should have been enough and have needed no reinforcement through conventional gestures, but the last are spontaneously involuntary accompaniments.

On the other hand there is the converse fact that the voice may be influenced through expression and gesture. If we fix an expression on our features or bring our body into an attitude which involves passional excitement we may be sure that we will be affected more or less by the appropriate emotion. This statement, formulated by Maudsley, is perfectly true and may be proved by anybody at any moment. It presents itself to us as an effective corroboration of the so well−known phenomenon of ``talking−yourself−into−it." Suppose you correctly imagine how a very angry man looks: frowning brow, clenched fists, gritting teeth, hoarse, gasping voice, and suppose you imitate. Then, even if you feel most harmless and order− loving, you become quite angry though you keep up the imitation only a little while. By means of the imitation of lively bodily changes you may in the same way bring yourself into any conceivable emotional condition, the outer expressions of which appear energetically. It must have occurred to every one of us how often prisoners present so well the excitement of passion that their earnestness is actually believed; as for example, the anger of a guiltless suspect or of an obviously needy person, of a man financially ruined by his trusted servant, etc. Such scenes of passion happen

[1] S. Stricker: Studien <u:>ber die Bewegungsvorstellungen. Vienna 1882.

<p 49> daily in every court−house and they are so excellently presented that even an experienced judge believes in their reality and tells himself that such a thing can not be imitated because the imitation is altogether too hard to do and still harder to maintain. But in reality the presentation is not so wonderful, and taken altogether, is not at all skilful; whoever wants to manifest _*anger_ must make the proper gestures (and that requires no art) and when he makes the gestures the necessary conditions occur and these stimulate and cause the correct manifestation of the later gestures, while these again influence the voice. Thus without any essential mummery the comedy plays itself out, self−sufficient, correct, convincing. Alarming oneself is not performed by words, but by the reciprocal influence of word and gesture, and the power of that influence is observable in the large number of cases where, in the end, people themselves believe what they have invented. If they are of delicate spiritual equilibrium they even become hypochondriacs. Writing, and the reading of writing, is to be considered in the same way as gesticulation; it has the same alarming influence on voice and general appearance as the other, so that it is relatively indifferent whether a man speaks and acts or writes and thinks. This fact is well known to everybody who has ever in his life written a really coarse letter.

Now this exciting gesticulation can be very easily observed, but the observation must not come too late. If the witness is once quite lost in it and sufficiently excited by the concomitant speeches he will make his gestures well and naturally and the artificial and untrue will not be discoverable. But this is not the case in the beginning; then his gestures are actually not skilful, and at that point a definite force of will and rather notable exaggerations are observable; the gestures go further than the words, and that is a matter not difficult to recognize. As soon as the recognition is made it becomes necessary to examine whether a certain congruity invariably manifests itself between word and gesture, inasmuch as with many people the above−mentioned lack of congruity is habitual and honest. This is particularly the case with people who are somewhat theatrical

and hence gesticulate too much. But if word and gesture soon conform one to another, especially after a rather lively presentation, you may be certain that the subject has skilfully worked himself into his alarm or whatever it is he wanted to manifest. Quite apart from the importance of seeing such a matter clearly the interest of the work is a rich reward for the labor involved.

In close relation to these phenomena is the change of color to <p 50> which unfortunately great importance is often assigned.[1] In this regard paling has received less general attention because it is more rare and less suspicious. That it can not be simulated, as is frequently asserted in discussions of simulation (especially of epilepsy), is not true, inasmuch as there exists an especial physiological process which succeeds in causing pallor artificially. In that experiment the chest is very forcibly contracted, the glottis is closed and the muscles used in inspiration are contracted. This matter has no practical value for us, on the one hand, because the trick is always involved with lively and obvious efforts, and on the other, because cases are hardly thinkable in which a man will produce artificial pallor in the court where it can not be of any use to him. The one possibility of use is in the simulation of epilepsy, and in such a case the trick can not be played because of the necessary falling to the ground.

Paling depends, as is well known, on the cramp of the muscles of the veins, which contract and so cause a narrowing of their bore which hinders the flow of blood. But such cramps happen only in cases of considerable anger, fear, pain, trepidation, rage; in short, in cases of excitement that nobody ever has reason to simulate. Paling has no value in differentiation inasmuch as a man might grow pale in the face through fear of being unmasked or in rage at unjust suspicion.

The same thing is true about blushing.[2] It consists in a sort of transitory crippling of those nerves that end in the walls of small arteries. This causes the relaxation of the muscle−fibers of the blood vessels which are consequently filled in a greater degree with blood. Blushing also may be voluntarily created by some individuals. In that case the chest is fully expanded, the glottis is closed and the muscles of expiration are contracted. But this matter again has no particular value for us since the simulation of a blush is at most of use only when a woman wants to appear quite modest and moral. But for that effect artificial blushing does not help, since it requires such intense effort as to be immediately noticeable. Blushing by means of external assistance, e. g., inhaling certain chemicals, is a thing hardly anybody will want to perform before the court.

With regard to guilt or innocence, blushing offers no evidence whatever. There is a great troop of people who blush without any

[1] E. Clapar<e!>de: L'obsession de la rougeur. Arch. de Psych. de la Suisse Romande, 1902, I, 307

[2] Henle: <U:>ber das Err<o:>ten. Breslau 1882.

<p 51> reason for feeling guilty. The most instructive thing in this matter is self−observation, and whoever recalls the cause of his own blushing will value the phenomenon lightly enough. I myself belonged, not only as a child, but also long after my student days, to those unfortunates who grow fire−red quite without reason; I needed only to hear of some shameful deed, of theft, robbery, murder, and I would get so red that a spectator might believe that I was one of the criminals. In my native city there was an old maid who had, I knew even as a boy, remained single because of unrequited love of my grandfather. She seemed to me a very poetical figure and once when her really magnificent ugliness was discussed, I took up her cause and declared her to be not so bad. My taste was laughed at, and since then, whenever this lady or the street she lives in or even her furs (she used to have pleasure in wearing costly furs) were spoken of, I would blush. And her age may be estimated from her calf−love. Now what has occurred to me, often painfully, happens to numbers of people, and it is hence inconceivable why forensic value is still frequently assigned to blushing. At the same time there are a few cases in which blushing may be important.

The matter is interesting even though we know nothing about the intrinsic inner process which leads to the

influence on the nervous filaments. Blushing occurs all the world over, and its occasion and process is the same among savages as among us.[1] The same events may be observed whether we compare the flush of educated or uneducated. There is the notion, which I believed for a long time, that blushing occurs among educated people and is especially rare among peasants, but that does not seem to be true. Working people, especially those who are out in the open a good deal, have a tougher pigmentation and a browner skin, so that their flush is less obvious. But it occurs as often and under the same conditions as among others. It might be said for the same reason that Gypsies never blush; and of course, that the blush may be rarer among people lacking in shame and a sense of honor is conceivable. Yet everybody who has much to do with Gypsies asserts that the blush may be observed among them.

Concerning the relation of the blush to age, Darwin says that early childhood knows nothing about blushing. It happens in youth more frequently than in old age, and oftener among women than among men. Idiots blush seldom, blind people and hereditary albinos, a great deal. The somatic process of blushing is, as Darwin

[1] Th. Waitz: Anthropologie der Naturv<o:>lker (Pt. I). Leipzig 1859.

<p 52> shows, quite remarkable. Almost always the blush is preceded by a quick contraction of the eyelids as if to prevent the rise of the blood in the eyes. After that, in most cases, the eyes are dropped, even when the cause of blushing is anger or vexation; finally the blush rises, in most cases irregularly and in spots, at last to cover the skin uniformly. If you want to save the witness his blush you can do it only at the beginning−−during the movement of the eyes−− and only by taking no notice of it, by not looking at him, and going right on with your remarks. This incidentally is valuable inasmuch as many people are much confused by blushing and really do not know what they are talking about while doing it. There is no third thing which is the cause of the blush and of the confusion; the blush itself is the cause of the confusion. This may be indubitably confirmed by anybody who has the agreeable property of blushing and therefore is of some experience in the matter. I should never dare to make capital of any statement made during the blush. Friedreich calls attention to the fact that people who are for the first time subject to the procedure of the law courts blush and lose color more easily than such as are accustomed to it, so that the unaccustomed scene also contributes to the confusion. Meynert[1] states the matter explicitly: ``The blush always depends upon a far−reaching association− process in which the complete saturation of the contemporaneously− excited nervous elements constricts the orderly movement of the mental process, inasmuch as here also the simplicity of contemporaneously−occurring activities of the brain determines the scope of the function of association." How convincing this definition is becomes clear on considering the processes in question. Let us think of some person accused of a crime to whom the ground of accusation is presented for the first time, and to whom the judge after that presents the skilfully constructed proof of his guilt by means of individual bits of evidence. Now think of the mass of thoughts here excited, even if the accused is innocent. The deed itself is foreign to him, he must imagine that; should any relation to it (e. g. presence at the place where the deed was done, interest in it, ownership of the object, etc.) be present to his mind, he must become clear concerning this relationship, while at the same time the possibilities of excuse−−alibi, ownership of the thing, etc.−−storm upon him. Then only does he consider the particular reasons of suspicion which he must, in some degree, incarnate and represent in their dangerous character, and for each of

[1] Th. Meynert: Psychiatry. Vienna 1884.

<p 53> which he must find a separate excuse. We have here some several dozens of thought−series, which start their movement at the same time and through each other. If at that time an especially dangerous apparent proof is brought, and if the accused, recognizing this danger, blushes with fear, the examiner thinks: ``Now I have caught the rascal, for he's blushing! Now let's go ahead quickly, speed the examination and enter the confused answer in the protocol! ``And who believes the accused when, later on, he withdraws the ``confession" and asserts that he had said the thing because they had mixed him up?

In this notion, ``you blush, therefore you have lied; you did it!" lie many sins the commission of which is

begun at the time of admonishing little children and ended with obtaining the ``confessions'' of the murderous thief.

Finally, it is not to be forgotten that there are cases of blushing which have nothing to do with psychical processes. Ludwig Meyer[1] calls it ``artificial blushing'' (better, ``mechanically developed blushing''), and narrates the case of ``easily−irritated women who could develop a blush with the least touch of friction, e. g., of the face on a pillow, rubbing with the hand, etc.; and this blush could not be distinguished from the ordinary blush.'' We may easily consider that such lightly irritable women may be accused, come before the court without being recognized as such, and, for example, cover their faces with their hands and blush. Then the thing might be called ``evidential.''

Section 12. (b) General Signs of Character.

Friedrich Gerst<a:>cker, in one of his most delightful moods, says somewhere that the best characteristicon of a man is how he wears his hat. If he wears it perpendicular, he is honest, pedantic and boresome. If he wears it tipped slightly, he belongs to the best and most interesting people, is nimble−witted and pleasant. A deeply tipped hat indicates frivolity and obstinate imperious nature. A hat worn on the back of the head signifies improvidence, easiness, conceit, sensuality and extravagance; the farther back the more dangerous is the position of the wearer. The man who presses his hat against his temples complains, is melancholy, and in a bad way. It is now many years since I have read this exposition by the much− traveled and experienced author, and I have thought countless times how right he was, but also, how there may be numberless similar

[1] L. Meyer: <U:>ber k<u:>nstliches Err<o:>ten. Westphals. Archiv, IV.

<p 54> marks of recognition which show as much as the manner of wearing a hat. There are plenty of similar expositions to be known; one man seeks to recognize the nature of others by their manner of wearing and using shoes; the other by the manipulation of an umbrella; and the prudent mother advises her son how the candidate for bride behaves toward a groom lying on the floor, or how she eats cheese−−the extravagant one cuts the rind away thick, the miserly one eats the rind, the right one cuts the rind away thin and carefully. Many people judge families, hotel guests, and inhabitants of a city, and not without reason, according to the comfort and cleanliness of their privies.

Lazarus has rightly called to mind what is told by the pious Chr. von Schmidt, concerning the clever boy who lies under a tree and recognizes the condition of every passer−by according to what he says. ``What fine lumber,''−−``Good−morning, carpenter,''−− ``What magnificent bark,''−−Good−morning, tanner,''−−``What beautiful branches,''−−``Good−morning, painter.'' This significant story shows us how easy it is with a little observation to perceive things that might otherwise have been hidden. With what subtle clearness it shows how effective is the egoism which makes each man first of all, and in most cases exclusively, perceive what most concerns him as most prominent! And in addition men so eagerly and often present us the chance for the deepest insight into their souls that we need only to open our eyes−−seeing and interpreting is so childishly easy! Each one of us experiences almost daily the most instructive things; e. g. through the window of my study I could look into a great garden in which a house was being built; when the carpenters left in the evening they put two blocks at the entrance and put a board on them crosswise. Later there came each evening a gang of youngsters who found in this place a welcome playground. That obstruction which they had to pass gave me an opportunity to notice the expression of their characters. One ran quickly and jumped easily over,−−that one will progress easily and quickly in his life. Another approached carefully, climbed slowly up the board and as cautiously descended on the other side−− careful, thoughtful, and certain. The third climbed up and jumped down−−a deed purposeless, incidental, uninforming. The fourth ran energetically to the obstruction, then stopped and crawled boldly underneath−−disgusting boy who nevertheless will have carried his job ahead. Then, again, there came a fifth who jumped,−− but too low, remained hanging and tumbled; he got up, rubbed his <p 55> knee, went back, ran again and came over magnificently−−and how magnificently will he achieve all things in life, for he has will, fearlessness, and courageous endurance!−−he can't sink.

Finally a sixth came storming along−−one step, and board and blocks fell together crashing, but he proudly ran over the obstruction, and those who came behind him made use of the open way. He is of the people who go through life as path−finders; we get our great men from among such.

Well, all this is just a game, and no one would dare to draw conclusions concerning our so serious work from such observations merely. But they can have a corroborative value if they are well done, when large numbers, and not an isolated few, are brought together, and when appropriate analogies are brought from appropriate cases. Such studies, which have to be sought in the daily life itself, permit easy development; if observations have been clearly made, correctly apprehended, and if, especially, the proper notions have been drawn from them, they are easily to be observed, stick in the memory, and come willingly at the right moment. But they must then serve only as indices, they must only suggest: ``perhaps the case is the same to−day." And that means a good deal; a point of view for the taking of evidence is established, not, of course, proof as such, or a bit of evidence, but a way of receiving it,−−perhaps a false one. But if one proceeds carefully along this way, it shows its falseness immediately, and another presented by memory shows us another way that is perhaps correct.

The most important thing in this matter is to get a general view of the human specimen−−and incidentally, nobody needs more to do this than the criminalist. For most of us the person before us is only ``A, suspected of *x*." But our man is rather more than that, and especially he was rather more before he became ``A suspected of *x*." Hence, the greatest mistake, and, unfortunately, the commonest, committed by the judge, is his failure to discuss with the prisoner his more or less necessary earlier life. Is it not known that every deed is an outcome of the total character of the doer? Is it not considered that deed and character are correlative concepts, and that the character by means of which the deed is to be established cannot be inferred from the deed alone? ``Crime is the product of the physiologically grounded psyche of the criminal and his environing external conditions." (Liszt). Each particular deed is thinkable only when a determinate character of the doer is brought in relation with it−−a certain character predisposes to <p 56> determinate deeds, another character makes them unthinkable and unrelatable with this or that person. But who thinks to know the character of a man without knowing his view of the world, and who talks of their world−views with his criminals? ``Whoever wants to learn to know men," says Hippel,[1] ``must judge them according to their wishes," and it is the opinion of Struve:[2] ``A man's belief indicates his purpose." But who of us asks his criminals about their wishes and beliefs?

If we grant the correctness of what we have said we gain the conviction that we can proceed with approximate certainty and conscientiousness only if we speak with the criminal, not alone concerning the deed immediately in question, but also searchingly concerning the important conditions of his inner life. So we may as far as possible see clearly what he is according to general notions and his particular relationships.

The same thing must also be done with regard to an important witness, especially when much depends upon his way of judging, of experiencing, of feeling, and of thinking, and when it is impossible to discover these things otherwise. Of course such analyses are often tiring and without result, but that, on the other hand, they lay open with few words whole broadsides of physical conditions, so that we need no longer doubt, is also a matter of course. Who wants to leave unused a formula of Schopenhauer's: ``We discover what we are through what we do?" Nothing is easier than to discover from some person important to us what he does, even though the discovery develops merely as a simple conversation about what he has done until now and what he did lately. And up to date we have gotten at such courses of life only in the great cases; in cases of murder or important political criminals, and then only at externals; we have cared little about the essential deeds, the smaller forms of activity which are always the significant ones. Suppose we allow some man to speak about others, no matter whom, on condition that he must know them well. He judges their deeds, praises and condemns them, and thinks that he is talking about them but is really talking about himself alone, for in each judgment of the others he aims to justify and enhance himself; the things he praises he does, what he finds fault with, he does not; or at least he wishes people to believe that he does the former and avoids the

[1] Th. G. von Hippel: Lebenl<a:>sufe nach aufsteigender Linie. Ed. v Oettingen. Leipzig 1880

[2] G. Struve: Das Seelenleben oder die Naturgeschichte des Menschen. Berlin 1869.

<p 57> latter. And when he speaks unpleasantly about his friends he has simply abandoned what he formerly had in common with them. Then again he scolds at those who have gotten on and blames their evil nature for it; but whoever looks more closely may perceive that he had no gain in the same evil and therefore dislikes it. At the same time, he cannot possibly suppress what he wishes and what he needs. Now, whoever knows this fact, knows his motives and to decide in view of these with regard to a crime is seldom difficult. ``Nos besoins vent nos forces"−−but superficial needs do not really excite us while what is an actual need does. Once we are compelled, our power to achieve what we want grows astoundingly. How we wonder at the great amount of power used up, in the case of many criminals! If we know that a real need was behind the crime, we need no longer wonder at the magnitude of the power. The relation between the crime and the criminal is defined because we have discovered his needs. To these needs a man's pleasures belong also; every man, until the practically complete loss of vigor, has as a rule a very obvious need for some kind of pleasure. It is human nature not to be continuously a machine, to require relief and pleasure.

The word pleasure must of course be used in the loosest way, for one man finds his pleasure in sitting beside the stove or in the shadow, while another speaks of pleasure only when he can bring some change in his work. I consider it impossible not to understand a man whose pleasures are known; his will, his power, his striving and knowing, feeling and perceiving cannot be made clearer by any other thing. Moreover, it happens that it is a man's pleasures which bring him into court, and as he resists or falls into them he reveals his character. The famous author of the ``Imitation of Christ," Thomas <a!> Kempis, whose book is, saving the Bible, the most wide−spread on earth, says: ``Occasiones hominem fragilem non faciunt, sea, qualis sit, ostendunt." That is a golden maxim for the criminalist. Opportunity, the chance to taste, is close to every man, countless times; is his greatest danger; for that reason it was great wisdom in the Bible that called the devil, the Tempter. A man's behavior with regard to the discovered or sought−out opportunity exhibits his character wholly and completely. But the chance to observe men face to face with opportunity is a rare one, and that falling−off with which we are concerned is often the outcome of such an opportunity. But at this point we ought not longer to learn, but to know; and hence our duty to study the <p 58> pleasures of men, to know how they behave in the presence of their opportunities.

There is another group of conditions through which you may observe and judge men in general. The most important one is to know yourself as well as possible, for accurate self−knowledge leads to deep mistrust with regard to others, and only the man suspicious with regard to others is insured, at least a little, against mistakes. To pass from mistrust to the reception of something good is not difficult, even in cases where the mistrust is well−founded and the presupposition of excellent motives among our fellows is strongly fought. Nevertheless, when something actually good is perceivable, one is convinced by it and even made happy. But the converse is not true, for anybody who is too trusting easily presupposes the best at every opportunity, though he may have been deceived a thousand times and is now deceived again. How it happens that self−knowledge leads to suspicion of others we had better not investigate too closely−−it is a fact.

Every man is characterized by the way he behaves in regard to his promises. I do not mean keeping or breaking a promise, because nobody doubts that the honest man keeps it and the scoundrel does not. I mean the _*manner_ in which a promise is kept and the _*degree_ in which it is kept. La Roche−Foucauld[1] says significantly: ``We promise according to our hopes, and perform according to our fears." When in any given case promising and hopes and performance and fears are compared, important considerations arise,−− especially in cases of complicity in crime.

When it is at all possible, and in most cases it is, one ought to concern oneself with a man's style,−−the handwriting of his soul. What this consists of cannot be expressed in a definite way. The style must simply be studied and tested with regard to its capacity for being united with certain presupposed qualities. Everybody

knows that education, bringing−up, and intelligence are indubitably expressed in style, but it may also be observed that style clearly expresses softness or hardness of a character, kindness or cruelty, determination or weakness, integrity or carelessness, and hundreds of other qualities. Generally the purpose of studying style may be achieved by keeping in mind some definite quality presupposed and by asking oneself, while reading the manuscript of the person in question, whether this quality fuses with the manuscript's form and with the individual tendencies and relationships that occur in the

[1] La Roche−Foucauld: Maximes et Refl<'>exions Morales.

<p 59> construction of the thought. One reading will of course not bring you far, but if the reading is repeated and taken up anew, especially as often as the writer is met with or as often as some new fact about him is established, then it is almost impossible not to attain a fixed and valuable result. One gets then significantly the sudden impression that the thing to be proved, having the expression of which the properties are to be established, rises out of the manuscript; and when that happens the time has come not to dawdle with the work. Repeated reading causes the picture above−mentioned to come out more clearly and sharply; it is soon seen in what places or directions of the manuscript that expression comes to light−− these places are grouped together, others are sought that more or less imply it, and soon a standpoint for further consideration is reached which naturally is not evidential by itself, but has, when combined with numberless others, corroborative value.

Certain small apparently indifferent qualities and habits are important. There are altogether too many of them to talk about; but there are examples enough of the significance of what is said of a man in this fashion: ``this man is never late," ``this man never forgets," ``this man invariably carries a pencil or a pocket knife," ``this one is always perfumed," ``this one always wears clean, carefully brushed clothes,"−−whoever has the least training may construct out of such qualities the whole inner life of the individual. Such observations may often be learned from simple people, especially from old peasants. A great many years ago I had a case which concerned a disappearance. It was supposed that the lost man was murdered. Various examinations were made without result, until, finally, I questioned an old and very intelligent peasant who had known well the lost man. I asked the witness to describe the nature of his friend very accurately, in order that I might draw from his qualities, habits, etc., my inferences concerning his tendencies, and hence concerning his possible location. The old peasant supposed that everything had been said about the man in question when he explained that he was a person who never owned a decent tool. This was an excellent description, the value of which I completely understood only when the murdered man came to life and I learned to know him. He was a petty lumberman who used to buy small wooded tracts in the high mountains for cutting, and having cut them down would either bring the wood down to the valley, or have it turned to charcoal. In the fact that he never owned a decent tool, nor had one for his men, was established his <p 60> whole narrow point of view, his cramped miserliness, his disgusting prudence, his constricted kindliness, qualities which permitted his men to plague themselves uselessly with bad tools and which justified altogether his lack of skill in the purchase of tools. So I thought how the few words of the old, much−experienced peasant were confirmed utterly−−they told the whole story. Such men, indeed, who say little but say it effectively, must be carefully attended to, and everything must be done to develop and to understand what they mean.

But the judge requires attention and appropriate conservation of his own observations. Whoever observes the people he deals with soon notices that there is probably not one among them that does not possess some similar, apparently unessential quality like that mentioned above. Among close acquaintances there is little difficulty in establishing which of their characteristics belong to that quality, and when series of such observations are brought together it is not difficult to generalize and to abstract from them specific rules. Then, in case of need, when the work is important, one makes use of the appropriate rule with pleasure, and I might say, with thanks for one's own efforts.

One essential and often useful symbol to show what a man makes of himself, what he counts himself for, is his use of the word _*we_. Hartenstein[1] has already called attention to the importance of this circumstance,

and Volkmar says: ``The _*we_ has a very various scope, from the point of an accidental simultaneity of images in the same sensation, representation or thought, to the almost complete circle of the family _*we_ which breaks through the _*I_ and even does not exclude the most powerful antagonisms; hatred, just like love, asserts its _*we_." What is characteristic in the word _*we_ is the opposition of a larger or smaller group of which the _*I_ is a member, to the rest of the universe. I say _*we_ when I mean merely my wife and myself, the inhabitants of my house, my family, those who live in my street, in my ward, or in my city; I say _*we_ assessors, we central−Austrians, we Austrians, we Germans, we Europeans, we inhabitants of the earth. I say we lawyers, we blonds, we Christians, we mammals, we collaborators on a monthly, we old students' society, we married men, we opponents of jury trial. But I also say _*we_ when speaking of accidental relations, such as being on the same train, meeting on the same mountain peak, in the same hotel, at the same concert, etc. In a word _*we_ defines all relationships from the

[1] Grundbegriffe der ethisehen Wissensehaft. Leipzig 1844.

<p 61> narrowest and most important, most essential, to the most individual and accidental. Conceivably the _*we_ unites also people who have something evil in common, who use it a great deal among themselves, and because of habit, in places where they would rather not have done so. Therefore, if you pay attention you may hear some suspect who denies his guilt, come out with a _*we_ which confesses his alliance with people who do the things he claims not to: _*we_ pickpockets, _*we_ house−breakers, _*we_ gamblers, inverts, etc.

It is so conceivable that man as a social animal seeks companionship in so many directions that he feels better protected when he has a comrade, when he can present in the place of his weak and unprotected _*I_ the stronger and bolder _*we_; and hence the considerable and varied use of the word. No one means that people are to be caught with the word; it is merely to be used to bring clearness into our work. Like every other honest instrument, it is an index to the place of the man before us.

Section 13. (Cc Particular Character−signs.

It is a mistake to suppose that it is enough in most cases to study that side of a man which is at the moment important−−his dishonesty only, his laziness, etc. That will naturally lead to merely one−sided judgment and anyway be much harder than keeping the whole man in eye and studying him as an entirety. Every individual quality is merely a symptom of a whole nature, can be explained only by the whole complex, and the good properties depend as much on the bad ones as the bad on the good ones. At the very least the quality and quantity of a good or bad characteristic shows the influence of all the other good and bad characteristics. Kindliness is influenced and partly created through weakness, indetermination, too great susceptibility, a minimum acuteness, false constructiveness, untrained capacity for inference; in the same way, again, the most cruel hardness depends on properties which, taken in themselves, are good: determination, energy, purposeful action, clear conception of one's fellows, healthy egotism, etc. Every man is the result of his nature and nurture, i. e. of countless individual conditions, and every one of his expressions, again, is the result of all of these conditions. If, therefore, he is to be judged, he must be judged in the light of them all.

For this reason, all those indications that show us the man as a whole are for us the most important, but also those others are valuable which show him up on one side only. In the latter <p 62> case, however, they are to be considered only as an index which never relieves us from the need further to study the nature of our subject. The number of such individual indications is legion and no one is able to count them up and ground them, but examples of them may be indicated.

We ask, for example, what kind of man will give us the best and most reliable information about the conduct and activity, the nature and character, of an individual? We are told: that sort of person who is usually asked for the information−−his nearest friends and acquaintances, and the authorities. Before all of these nobody shows himself as he is, because the most honest man will show himself before people in whose judgment he has an interest at least as good as, if not better than he is−−that is fundamental to the general egoistic essence

of humanity, which seeks at least to avoid reducing its present welfare. Authorities who are asked to make a statement concerning any person, can say reliably only how often the man was punished or came otherwise in contact with the law or themselves. But concerning his social characteristics the authorities have nothing to say; they have got to investigate them and the detectives have to bring an answer. Then the detectives are, at most, simply people who have had the opportunity to watch and interrogate the individuals in question,−−the servants, house− furnishers, porters, corner−loafers, etc. Why we do not question the latter ourselves I cannot say; if we did we might know these people on whom we depend for important information and might put our questions according to the answers that we need. It is a purely negative thing that an official declaration is nowadays not unfrequently presented to us in the disgusting form of the gossip of an old hag. But in itself the form of getting information about people through servants and others of the same class is correct. One has, however, to beware that it is not done simply because the gossips are most easily found, but because *people show their weaknesses most readily before those whom they hold of no account*. The latter fact is well known, but not sufficiently studied. It is of considerable importance. Let us then examine it more closely: Nobody is ashamed to show himself before an animal as he is, to do an evil thing, to commit a crime; the shame will increase very little if instead of the animal a complete idiot is present, and if now we suppose the intelligence and significance of this witness steadily to increase, the shame of appearing before him as one is increases in a like degree. So we will control ourselves most before people <p 63> whose judgment is of most importance to us. The Styrian, Peter Rosegger, one of the best students of mankind, once told a first−rate story of how the most intimate secrets of certain people became common talk although all concerned assured him that nobody had succeeded in getting knowledge of them. The news−agent was finally discovered in the person of an old, humpy, quiet, woman, who worked by the day in various homes and had found a place, unobserved and apparently indifferent, in the corner of the sitting− room. Nobody had told her any secrets, but things were allowed to occur before her from which she might guess and put them together. Nobody had watched this disinterested, ancient lady; she worked like a machine; her thoughts, when she noted a quarrel or anxiety or disagreement or joy, were indifferent to all concerned, and so she discovered a great deal that was kept secret from more important persons. This simple story is very significant−−we are not to pay attention to gossips but to keep in mind that the information of persons is in the rule more important and more reliable when the question under consideration is indifferent to them than when it is important. We need only glance at our own situation in this matter−−what do we know about our servants? What their Christian names are, because we have to call them; where they come from, because we hear their pronunciation; how old they are, because we see them; and those of their qualities that we make use of. But what do we know of their family relationships, their past, their plans, their joys or sorrows? The lady of the house knows perhaps a little more because of her daily intercourse with them, but her husband learns of it only in exceptional cases when he bothers about things that are none of his business. Nor does madam know much, as examination shows us daily. But what on the other hand do the servants know about us? The relation between husband and wife, the bringing−up of the children, the financial situation, the relation with cousins, the house−friends, the especial pleasures, each joy, each trouble that occurs, each hope, everything from the least bodily pain to the very simplest secret of the toilette−−they know it all. What can be kept from them? The most restricted of them are aware of it, and if they do not see more, it is not because of our skill at hiding, but because of their stupidity. We observe that in these cases there is not much that can be kept secret and hence do not trouble to do so.

There is besides another reason for allowing subordinate or indifferent people to see one's weaknesses. The reason is that we <p 64> hate those who are witnesses of a great weakness. Partly it is shame, partly vexation at oneself, partly pure egoism, but it is a fact that one's anger turns instinctively upon those who have observed one's degradation through one's own weakness. This is so frequently the case that the witness is to be the more relied on the more the accused would seem to have preferred that the witness had not seen him. Insignificant people are not taken as real witnesses; they were there but they haven't perceived anything; and by the time it comes to light that they see at least as well as anybody else, it is too late. One will not go far wrong in explaining the situation with the much varied epigram of Tacitus: ``Figulus odit figulum." It is, at least, through business−jealousy that one porter hates another, and the reason for it lies in the fact that two of a trade know each other's weaknesses, that one always knows how the other tries to hide his lack of knowledge, how deceitful fundamentally every human activity is, and how much trouble everybody takes to

make his own trade appear to the other as fine as possible. If you know, however, that your neighbor is as wise as you are, the latter becomes a troublesome witness in any disagreeable matter, and if he is often thought of in this way, he comes to be hated. Hence you must never be more cautious than when one ``figulus'' gives evidence about another. Esprit de corps and jealousy pull the truth with frightful force, this way and that, and the picture becomes the more distorted because so−called esprit de corps is nothing more than generalized selfishness. Kant[1] is not saying enough when he says that the egoist is a person who always tries to push his own _*I_ forward and to make it the chief object of his own and of everybody else's attention. For the person who merely seeks attention is only conceited; the egoist, however, seeks his own advantage alone, even at the cost of other people, and when he shows esprit de corps he desires the advantage of his corps because he also has a share in that. In this sense one of a trade has much to say about his fellow craftsmen, but because of jealousy, says too little−−in what direction, however, he is most likely to turn depends on the nature of the case and the character of the witness.

In most instances it will be possible to make certain distinctions as to when objectively too much and subjectively too little is said. That is to say, the craftsman will exaggerate with regard to all

[1] Menschenkunde oder philosophische Anthropologie. Leipzig 1831. Ch. Starke.

<p 65> general questions, but with regard to his special fellow jealousy will establish her rights. An absolute distinction may never be drawn, not even subjectively. Suppose that A has something to say about his fellow craftsman B, and suppose that certain achievements of B are to be valued. If now A has been working in the same field as B he must not depreciate too much the value of B's work, since otherwise his own work is in danger of the same low valuation. Objectively the converse is true: for if A bulls the general efficiency of his trade, it doesn't serve his conceit, since we find simply that the competitor is in this way given too high a value. It would be inadvisable to give particular examples from special trades, but everybody who has before him one ``figulus'' after another, from the lowest to the highest professions, and who considers the statements they make about each other, will grant the correctness of our contention. I do not, at this point, either, assert that the matter is the same in each and every case, but that it is generally so is indubitable.

There is still another thing to be observed. A good many people who are especially efficient in their trades desire to be known as especially efficient in some other and remote circle. It is historic that a certain regent was happy when his very modest flute−playing was praised; a poet was pleased when his miserable drawings were admired; a marshal wanted to hear no praise of his victories but much of his very doubtful declamation. The case is the same among lesser men. A craftsman wants to shine with some foolishness in another craft, and ``the philistine is happiest when he is considered a devil of a fellow.'' The importance of this fact lies in the possibility of error in conclusions drawn from what the subject himself tries to present about his knowledge and power. With regard to the past it leads even fundamentally honest persons to deception and lying.

So for example a student who might have been the most solid and harmless in his class later makes suggestions that he was the wildest sport; the artist who tried to make his way during his cubhood most bravely with the hard−earned money of his mother is glad to have it known that he was guilty as a young man of unmitigated nonsense; and the ancient dame who was once the most modest of girls is tickled with the flattery of a story concerning her magnificent flirtations. When such a matter is important for us it must be received with great caution.

To this class of people who want to appear rather more interesting than they are, either in their past or present, belong also those who <p 66> declare that everything is possible and who have led many a judge into vexatious mistakes. This happens especially when an accused person tries to explain away the suspicions against him by daring statements concerning his great achievements (e. g.: in going back to a certain place, or his feats of strength, etc.), and when witnesses are asked if these are conceivable. One gets the impression in these cases that the witnesses under consideration suppose that they belittle themselves and their point of view

if they think anything to be impossible. They are easily recognized. They belong to the worst class of promoters and inventors or their relations. If a man is studying how to pay the national debt or to solve the social question or to irrigate Sahara, or is inclined to discover a dirigible airship, a perpetual−motion machine, or a panacea, or if he shows sympathy for people so inclined, he is likely to consider everything possible−−and men of this sort are surprisingly numerous. They do not, as a rule, carry their plans about in public, and hence have the status of prudent persons, but they betray themselves by their propensity for the impossible in all conceivable directions. If a man is suspected to be one of them, and the matter is important enough, he may be brought during the conversation to talk about some project or invention. He will then show how his class begins to deal with it, with what I might call a suspicious warmth. By that token you know the class. They belong to that large group of people who, without being abnormal, still have passed the line which divides the perfectly trustworthy from those unreliable persons who, with the best inclination to tell the truth, can render it only as it is distorted by their clouded minds.

These people are not to be confused with those specific men of power who, in the attempt to show what they can do, go further than in truth they should. There are indeed persons of talent who are efficient, and know it, whether for good or evil, and they happen to belong both to the class of the accused and of the witness. The former show this quality in confessing to more than they are guilty of, or tell their story in such a way as to more clearly demonstrate both their power and their conceit. So that it may happen that a man takes upon himself a crime that he shares with three accomplices or that he describes a simple larceny as one in which force had to be used with regard to its object and even with regard to the object's owner; or perhaps he describes his flight or his opponents' as much more troublesome than these actually were or need have been. The witness behaves in a similar fashion and shows his defense <p 67> against an attack for example, or his skill in discovery of his goods, or his detection of the criminal in a much brighter light than really belongs to it; he even may describe situations that were superfluous in order to show what he can do. In this way the simplest fact is often distorted. As suspects such people are particularly difficult to deal with. Aside from the fact that they do more and actually have done more than was necessary, they become unmanageable and hard−mouthed through unjust accusations. Concerning these people the statement made a hundred years ago by Ben David[1] still holds: ``Persecution turns wise people raw and foolish, and kindly and well disposed ones cruel and evil−intentioned." There are often well disposed natures who, after troubles, express themselves in the manner described. It very frequently happens that suspects, especially those under arrest, alter completely in the course of time, become sullen, coarse, passionate, ill−natured, show themselves defiant and resentful to even the best−willed approach, and exhibit even a kind of courage in not offering any defense and in keeping silent. Such phenomena require the most obvious caution, for one is now dealing apparently with powerful fellows who have received injustice. Whether they are quite guiltless, whether they are being improperly dealt with, or for whatever reason the proper approach has not been made, we must go back, to proceed in another fashion, and absolutely keep in mind the possibility of their being innocent in spite of serious evidence against them.

These people are mainly recognizable by their mode of life, their habitual appearance, and its expression. Once that is known their conduct in court is known. In the matter of individual features of character, the form of life, the way of doing things is especially to be observed. Many an effort, many a quality can be explained in no other way. The simple declaration of Volkmar, ``There are some things that we want only because we had them once," explains to the criminalist long series of phenomena that might otherwise have remained unintelligible. Many a larceny, robbery, possibly murder, many a crime springing from jealousy, many sexual offenses become intelligible when one learns that the criminal had at one time possessed the object for the sake of which he committed the crime, and having lost it had tried with irresistible vigor to regain it. What is extraordinary in the matter is the fact that considerable time passes between the loss and the desire for recovery. It seems as if the isolated moments of desire sum themselves up in the course

[1] Etwas zur Charakterisierung der Juden. 1793.

<p 68> of time and then break out as the crime. In such cases the explaining motive of the deed is never to be

found except in the criminal's past.

The same relationship exists in the cases of countless criminals whose crimes seem at bottom due to apparently inconceivable brutality. In all such cases, especially when the facts do not otherwise make apparent the possible guilt of the suspect, the story of the crime's development has to be studied. Gustav Strave asserts that it is demonstrable that young men become surgeons out of pure cruelty, out of desire to see people suffer pain and to cause pain. A student of pharmacy became a hangman for the same reason and a rich Dutchman paid the butchers for allowing him to kill oxen. If, then, one is dealing with a crime which points to _*extraordinary_ cruelty, how can one be certain about its motive and history without knowing the history of the criminal?

This is the more necessary inasmuch as we may be easily deceived through apparent motives. ``Inasmuch as in most capital crimes two or more motives work together, an ostensible and a concealed one," says Kraus,[1] ``each criminal has at his command apparent motives which encourage the crime." We know well enough how frequently the thief excuses himself on the ground of his need, how the criminal wants to appear as merely acting in self−defense during robberies, and how often the sensualist, even when he has misbehaved with a little child, still asserts that the child had seduced _*him_. In murder cases even, when the murderer has confessed, we frequently find that he tries to excuse himself. The woman who poisons her husband, really because she wants to marry another, tells her story in such a way as to make it appear that she killed him because he was extraordinarily bad and that her deed simply freed the world of a disgusting object. As a rule the psychological aspect of such cases is made more difficult, by the reason that the subject has in a greater or lesser degree convinced himself of the truth of his statements and finally believes his reasons for excuse altogether or in part. And if a man believes what he says, the proof that the story is false is much harder to make, because psychological arguments that might be used to prove falsehood are then of no use. This is an important fact which compels us to draw a sharp line between a person who is obviously lying and one who does believe what he says. We have to discover the difference, inasmuch as the self−developed conviction of the truth of a story is never so

[1] A. Kraus: Die Psychologie des Verbrechens. T<u:>bingen 1884.

<p 69> deep rooted as the real conviction of truth. For that reason, the person who has convinced himself of his truth artificially, watches all doubts and objections with much greater care than a man who has no doubt whatever in what he says. The former, moreover, does not have a good conscience, and the proverb says truly, ``a bad conscience has a fine ear." The man knows that he is not dealing correctly with the thing and hence he observes all objections, and the fact that he does so observe, can not be easily overlooked by the examining officer.

Once this fine hearing distinguishes the individual who really believes in the motive he plausibly offers the court, there is another indication (obviously quite apart from the general signs of deceit) that marks him further, and this comes to light when one has him speak about similar crimes of others in which the ostensible motive actually was present. It is said rightly, that not he is old who no longer commits youthful follies but he that no longer forgives them, and so not merely he is bad who himself commits evil but also he who excuses them in others. Of course, that an accused person should defend the naked deed as it is described in the criminal law is not likely for conceivable reasons−−since certainly no robbery−suspect will sing a paean about robbers, but certainly almost anybody who has a better or a better−appearing motive for his crime, will protect those who have been guided by a similar motive in other cases. Every experiment shows this to be the case and then apparent motives are easily enough recognized as such.

(d) Somatic Character−Units.

Section 14. (1) *General Considerations*.

When we say that the inner condition of men implies some outer expression, it must follow that there are series of phenomena which especially mold the body in terms of the influence of a state of mind on external appearance, or conversely, which are significant of the influence of some physical uniqueness on the psychical state, or of some other psycho physical condition. As an example of the first kind one may cite the well known phenomenon that devotees always make an impression rather specifically feminine. As an example of the second kind is the fact demonstrated by Gyurkovechky[1] that impotents exhibit disagreeable characteristics. Such conditions find their universalizing expression in the cruel but true maxim

[1] V. Gyurkovechky: Pathologie und Therapie der m<a:>nnlichen Impotenz. Vienna, Leipzig 1889.

<p 70> ``Beware of the marked one." The Bible was the first of all to make mention of these evil stigmata. No one of course asserts that the bearer of any bodily malformation is for that reason invested with one or more evil qualities−−``Non cum hoc, sed propter hoc." It is a general quality of the untrained, and hence the majority of men, that they shall greet the unfortunate who suffers from some bodily malformation not with care and protection, but with scorn and maltreatment. Such propensities belong, alas, not only to adults, but also to children, who annoy their deformed playfellows (whether expressly or whether because they are inconsiderate), and continually call the unhappy child's attention to his deformity. Hence, there follows in most cases from earliest youth, at first a certain bitterness, then envy, unkindness, stifled rage against the fortunate, joy in destruction, and all the other hateful similar qualities however they may be named. In the course of time all of these retained bitter impressions summate, and the qualities arising from them become more acute, become habitual, and at last you have a ready−made person ``marked for evil." Add to this the indubitable fact that the marked persons are considerably wiser and better−instructed than the others. Whether this is so by accident or is causally established is difficult to say; but inasmuch as most of them are compelled just by their deformities to deprive themselves of all common pleasures and to concern themselves with their own affairs, once they have been fed to satiety with abuse, scorn and heckling, the latter is the more likely. Under such circumstances they have to think more, they learn more than the others to train their wits, largely as means of defense against physical attack. They often succeed by wit, but then, they can never be brought into a state of good temper and lovableness when they are required to defend themselves by means of sharp, biting and destructive wit. Moreover, if the deformed is naturally not well− disposed, other dormant evil tendencies develop in him, which might never have realized themselves if he had had no need of them for purposes of self−defense−−lying, slander, intrigue, persecution by means of unpermitted instruments, etc. All this finally forms a determinate complex of phenomena which is undivorceably bound in the eyes of the expert with every species of deformity: the mistrusting of the deaf man, the menacing expression of the blind, the indescribable and therefore extremely characteristic smiling of the hump−back are not the only typical phenomena of this kind. <p 71>

All this is popularly known and is abnormally believed in, so that we often discover that the deformed are more frequently suspected of crime than normal people. Suspicion turns to them especially when an unknown criminal has committed a crime the accomplishment of which required a particularly evil nature and where the deed of itself called forth general indignation. In that case, once a deformed person is suspected, grounds of suspicion are not difficult to find; a few collect more as a rolling ball does snow. After that the sweet proverb: ``Vox populi, vox dei," drives the unfortunate fellow into a chaos of evidential grounds of suspicion which may all be reduced to the fact that he has red hair or a hump. Such events are frightfully frequent.[1]

Section 15. (2) *Causes of Irritation*.

Just as important as these phenomena are the somatic results of psychic irritation. These latter clear up processes not to be explained by words alone and often over−valued and falsely interpreted. Irritations are important for two reasons: (1) as causes of crime, and (2) as signs of identification in examination.

In regard to the first it is not necessary to show what crimes are committed because of anger, jealousy, or rage, and how frequently terror and fear lead to extremes otherwise inexplicable−−these facts are partly so well

known, partly so very numerous and various, that an exposition would be either superfluous or impossible. Only those phenomena will be indicated which lie to some degree on the borderland of the observed and hence may be overlooked. To this class belong, for example, anger against the object, which serves as explanation of a group of so−called malicious damages, such as arson, etc. Everybody, even though not particularly lively, remembers instances in which he fell into great and inexplicable rage against an object when the latter set in his way some special difficulties or caused him pain; and he remembers how he created considerable ease for himself by flinging it aside, tearing it or smashing it to pieces. When I was a student I owned a very old, thick Latin lexicon, ``Kirschii cornu copia," bound in wood covered with pigskin. This respectable book flew to the ground whenever its master was vexed, and never failed profoundly to reduce the inner stress. This ``Kirschius" was inherited from my great−grandfather and it did not suffer much damage. When, however, some poor apprentice tears the fence, on a nail of which his only coat got a bad tear, or

[1] Cf. N<a:>cke in H. Gross's Archiv, I, 200; IX, 153.

<p 72> when a young peasant kills the dog that barks at him menacingly and tries to get at his calf, then we come along with our ``damages according to so and so much," and the fellow hasn't done any more than I have with my ``Kirschius."[1] In the magnificent novel, ``Auch Einer," by F. T. Vischer, there is an excellent portrait of the perversity of things; the author asserts that things rather frequently hold ecumenical councils with the devil for the molestation of mankind.

How far the perversity of the inanimate can lead I saw in a criminal case in which a big isolated hay−stack was set on fire. A traveler was going across the country and sought shelter against oncoming bad weather. The very last minute before a heavy shower he reached a hay−stack with a solid straw cover, crept into it, made himself comfortable in the hay and enjoyed his good fortune. Then he fell asleep, but soon woke again inasmuch as he, his clothes, and all the hay around him was thoroughly soaked, for the roof just above him was leaking. In frightful rage over this ``evil perversity," he set the stack on fire and it burned to the ground.

It may be said that the fact of the man's anger is as much a motive as any other and should have no influence on the legal side of the incident. Though this is quite true, we are bound to consider the crime and the criminal as a unit and to judge them so. If under such circumstances we can say that this unit is an outcome natural to the character of mankind, and even if we say, perhaps, that we might have behaved similarly under like circumstances, if we really cannot find something absolutely evil in the deed, the criminal quality of it is throughout reduced. Also, in such smaller cases the fundamental concept of modern criminology comes clearly into the foreground: ``not the crime but the criminal is the object of punishment, not the concept but the man is punished." (Liszt).

The fact of the presence of a significant irritation is important for passing judgment, and renders it necessary to observe with the most thorough certainty how this irritation comes about. This is the more important inasmuch as it becomes possible to decide whether the irritation is real or artificial and imitated. Otherwise, however, the meaning of the irritation can be properly valued only when its development can be held together step by step with its causes. Suppose I let the suspect know the reason of suspicion brought by his enemies, then if his anger sensibly increases with the presentation of each new ground, it appears much more natural

[1] Cf. Bernhardi in H. Gross's Archiv, V, p. 40.

<p 73> and real than if the anger increased in inexplicable fashion with regard to less important reasons for suspicion and developed more slowly with regard to the more important ones.

The collective nature of somatic phenomena in the case of great excitement has been much studied, especially among animals, these being simpler and less artificial and therefore easier to understand, and in the long run comparatively like men in the expression of their emotions. Very many animals, according to Darwin, erect their hair or feathers or quills in cases of anxiety, fear, or horror, and nowadays, indeed, involuntarily, in order

to exhibit themselves as larger and more terrible. The same rising of the hair even to−day plays a greater r<o^>le among men than is generally supposed. Everybody has either seen in others or discovered in himself that fear and terror visibly raise the hair. I saw it with especial clearness during an examination when the person under arrest suddenly perceived with clearness, though he was otherwise altogether innocent, in what great danger he stood of being taken for the real criminal. That our hair rises in cases of fear and horror without being visible is shown, I believe, in the well known movement of the hand from forehead to crown. It may be supposed that the hair rises at the roots invisibly but sensibly and thus causes a mild tickling and pricking of the scalp which is reduced by smoothing the head with the hand. This movement, then, is a form of involuntary scratching to remove irritation. That such a characteristic movement is made during examination may therefore be very significant under certain circumstances. Inasmuch as the process is indubitably an influence of the nerves upon the finer and thinner muscle−fibers, it must have a certain resemblance to the process by which, as a consequence of fear, horror, anxiety, or care, the hair more or less suddenly turns white. Such occurrences are in comparatively large numbers historical; G. Pouchet[1] counts up cases in which hair turned white suddenly, (among them one where it happened while the poor sinner was being led to execution). Such cases do not interest us because, even if the accused himself turned grey over night, no evidence is afforded of guilt or innocence. Such an occurrence can be evidential only when the hair changes color demonstrably in the case of a witness. It may then be certainly believed that he had experienced something terrible and aging. But whether he had really experienced this, or merely believed that he had experienced it, can as yet not be discovered, since the

[1] Revue de deux Mondes, Jan. 1, 1872.

<p 74> belief and the actual event have the same mental and physical result.

Properly to understand the other phenomena that are the result of significant irritation, their matrix, their aboriginal source must be studied. Spencer says that fear expresses itself in cries, in hiding, sobbing and trembling, all of which accompany the discovery of the really terrible; while the destructive passions manifest themselves in tension of the muscles, gritting of the teeth, extending the claws: all weaker forms of the activity of killing. All this, aboriginally inherited from the animals, occurs in rather less intense degrees in man, inclusive of baring the claws, for exactly this movement may often be noticed when somebody is speaking with anger and vexation about another person and at the same time extends and contracts his fingers. Anybody who does this even mildly and unnoticeably means harm to the person he is talking about. Darwin indeed, in his acutely observing fashion, has also called attention to this. He suggests that a man may hate another intensely, but that so long as his anatomy is not affected he may not be said to be enraged. This means clearly that the somatic manifestations of inner excitement are so closely bound up with the latter that we require the former whenever we want to say anything about the latter. And it is true that we never say that a man was enraged or only angry, if he remained physically calm, no matter how noisy and explicit he might have been with words. This is evidence enough of the importance of noticing bodily expression. ``How characteristic,'' says Volkmar[1] ``is the trembling and heavy breathing of fear, the glowering glance of anger, the choking down of suppressed vexation, the stifling of helpless rage, the leering glance and jumping heart of envy.'' Darwin completes the description of fear: The heart beats fast, the features pale, he feels cold but sweats, the hair rises, the secretion of saliva stops, hence follows frequent swallowing, the voice becomes hoarse, yawning begins, the nostrils tremble, the pupils widen, the constrictor muscles relax. Wild and very primitive people show this much more clearly and tremble quite uncontrolled. The last may often be seen and may indeed be established as a standard of culture and even of character and may help to determine how far a man may prevent the inner irritation from becoming externally noticeable. Especially he who has much to do with Gypsies is aware how little these people can control themselves. From this fact also spring the numerous

[1] v. Volkmar: Lehrbuch der Psychologie. C<o:>then 1875.

<p 75> anecdotes concerning the wild rulers of uncultivated people, who simply read the guilt of the suspect from his external behavior, or even more frequently were able to select the criminal with undeceivable

acuteness from a number brought before them. Bain[1] narrates that in India criminals are required to take rice in the mouth and after awhile to spit it out. If it is dry the accused is held to be guilty−−fear has stopped the secretion of saliva−−obstupui, stetetuntque comae, et vox faucibus haesit.

Concerning the characteristic influence of timidity see Paul Hartenberg.[2]

Especially self−revealing are the outbreaks of anger against oneself, the more so because I believe them always to be evidence of consciousness of guilt. At least, I have never yet seen an innocent man fall into a paroxysm of rage against himself, nor have I ever heard that others have observed it, and I would not be able psychologically to explain such a thing should it happen. Inasmuch as scenes of this kind can occur perceivably only in the most externalized forms of anger, so such an explosion is elementary and cannot possibly be confused with another. If a man wrings his hands until they bleed, or digs his finger−nails into his forehead, nobody will say that this is anger against himself; it is only an attempt to do something to release stored−up energy, to bring it to bear against somebody. People are visibly angry against themselves only when they do such things to themselves as they might do to other people; for example, beating, smashing, pulling the hair, etc. This is particularly frequent among Orientals who are more emotional than Europeans. So I saw a Gypsy run his head against a wall, and a Jew throw himself on his knees, extend his arms and box his ears with both hands so forcibly that the next day his cheeks were swollen. But other races, if only they are passionate enough, behave in a similar manner. I saw a woman, for example, tear whole handfuls of hair from her head, a murdering thief, guilty of more or fewer crimes, smash his head on the corner of a window, and a seventeen year old murderer throw himself into a ditch in the street, beat his head fiercely on the earth, and yell, ``Hang me! Pull my head off!"

The events in all these cases were significantly similar: the crime was so skilfully committed as conceivably to prevent the discovery of the criminal; the criminal denied the deed with the most glaring

[1] A. Bain: The Emotions and the Will. 1875.

[2] Les Timides et la Timidit<e'>. Paris 1901.

<p 76> impudence and fought with all his power against conviction−−in the moment, however, he realized that all was lost, he exerted his boundless rage against himself who had been unable to oppose any obstacle to conviction and who had not been cautious and sly enough in the commission of the crime. Hence the development of the fearful self−punishment, which could have no meaning if the victim had felt innocent.

Such expressions of anger against oneself often finish with fainting. The reason of the latter is much less exhaustion through paroxysms of rage than the recognition and consciousness of one's own helplessness. Reichenbach[1] once examined the reason for the fainting of people in difficult situations. It is nowadays explained as the effect of the excretion of carbonic acid gas and of the generated anthropotoxin; another explanation makes it a nervous phenomenon in which the mere recognition that release is impossible causes fainting, the loss of consciousness. For our needs either account of this phenomenon will do equally. It is indifferent whether a man notices that he cannot voluntarily change his condition in a physical sense, or whether he notices that the evidence is so convincing that he can not dodge it. The point is that if for one reason or another he finds himself physically or legally in a bad hole, he faints, just as people in novels or on the stage faint when there is no other solution of the dramatic situation.

When anger does not lead to rage against oneself, the next lower stage is laughter.[2] With regard to this point, Darwin calls attention to the fact that laughter often conceals other mental conditions than those it essentially stands for−−anger, rage, pain, perplexity, modesty and shame; when it conceals anger it is anger against oneself, a form of scorn. This same wooden, dry laughter is significant, and when it arises from the perception that the accused no longer sees his way out, it is not easily to be confused with another form of laughter. One gets the impression that the laugher is trying to tell himself, ``That is what you get for being bad

and foolish!"

Section 16. (3) *Cruelty*.

Under this caption must be placed certain conditions that may under given circumstances be important. Although apparently without any relations to each other they have the common property of being external manifestations of mental processes.

[1] K. von Reichenbach: Der sensitive Mensch. Cotta 1854.

[2] e. f. H. Bergson: Le Rire. Paris 1900.

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In many cases they are explanations which may arise from the observation of the mutative relations between cruelty, bloodthirstiness, and sensuality. With regard to this older authors like Mitchell,[1] Blumroder,[2] Friedreich,[3] have brought examples which are still of no little worth. They speak of cases in which many people, not alone men, use the irritation developed by greater or lesser cruelty for sexual purposes: the torturing of animals, biting, pinching, choking the partner, etc. Nowadays this is called sadism.[4] Certain girls narrate their fear of some of their visitors who make them suffer unendurably, especially at the point of extreme passion, by biting, pressing, and choking. This fact may have some value in criminology. On the one hand, certain crimes can be explained only by means of sexual cruelty, and on the other, knowledge of his habits with this regard may, again, help toward the conviction of a criminal. I recall only the case of Ballogh−Steiner in Vienna, a case in which a prostitute was stifled. The police were at that time hunting a man who was known in the quarter as ``chicken−man," because he would always bring with him two fowls which he would choke during the orgasm. It was rightly inferred that a man who did that sort of thing was capable under similar circumstances of killing a human being. Therefore it will be well, in the examination of a person accused of a cruel crime, not to neglect the question of his sexual habits; or better still, to be sure to inquire particularly whether the whole situation of the crime was not sexual in nature.[5]

In this connection, deeds that lead to cruelty and murder often involve forms of epilepsy. It ought therefore always to be a practice to consult a physician concerning the accused, for cruelty, lust, and psychic disorders are often enough closely related. About this matter Lombroso is famous for the wealth of material he presents.

Section 17. (4) *Nostalgia*.

The question of home−sickness is of essential significance and must not be undervalued. It has been much studied and the notion has been reached that children mainly (in particular during the period of puberty), and idiotic and weak persons, suffer much from home−sickness, and try to combat the oppressive feeling of dejection

[1] Mitchell: <U:>ber die Mitleidenschaft der Geschlechtsteile mit dem Kopfe. Vienna 1804.

[2] Blumr<o:>der: <U:>ber das Irresein. Leipzig 1836.

[3] J. B. Friedreich: Gerichtliche Psychologie. Regensburg 1832.

[4] Cf. N<a:>cke. Gross's Archiv, XV. 114.

[5] Schrenck−Notzing: Ztschrft. f. Hypnotismus, VII, 121; VIII, 40, 275; IX, 98.

<p 78> with powerful sense stimuli. Hence they are easily led to crime, especially to arson. It is asserted that

uneducated people in lonesome, very isolated regions, such as mountain tops, great moors, coast country, are particularly subject to nostalgia. This seems to be true and is explained by the fact that educated people easily find diversion from their sad thoughts and in some degree take a piece of home with them in their more or less international culture. In the same way it is conceivable that inhabitants of a region not particularly individualized do not so easily notice differences. Especially he who passes from one city to another readily finds himself, but mountain and plain contain so much that is contrary that the feeling of strangeness is overmastering. So then, if the home−sick person is able, he tries to destroy his nostalgia through the noisiest and most exciting pleasures; if he is not, he sets fire to a house or in case of need, kills somebody−−in short what he needs is explosive relief. Such events are so numerous that they ought to have considerable attention. Nostalgia should be kept in mind where no proper motive for violence is to be found and where the suspect is a person with the above−mentioned qualities. Then again, if one discovers that the suspect is really suffering from home−sickness, from great home−sickness for his local relations, one has a point from which the criminal may be reached. As a rule such very pitiful individuals are so less likely to deny their crime in the degree in which they feel unhappy that their sorrow is not perceivably increased through arrest. Besides that, the legal procedure to which they are subjected is a not undesired, new and powerful stimulus to them.

When such nostalgiacs confess their deed they never, so far as I know, confess its motive. Apparently they do not know the motive and hence cannot explain the deed. As a rule one hears, ``I don't know why, I had to do it." Just where this begins to be abnormal, must be decided by the physician, who must always be consulted when nostalgia is the ground for a crime. Of course it is not impossible that a criminal in order to excite pity should explain his crime as the result of unconquerable home−sickness−−but that must always be untrue because, as we have shown, anybody who acts out of home−sickness, does not know it and can not tell it.

Section 18. (5) *Reflex Movements*.

Reflex actions are also of greater significance than as a rule they are supposed to be. According to Lotze,[1] ``reflex actions are not

[1] Lotze: Medizinisehe Psychologie. Leipzig 1852.

<p 79> limited to habitual and insignificant affairs of the daily life. Even compounded series of actions which enclose the content even of a crime may come to actuality in this way . . . in a single moment in which the sufficient opposition of some other emotional condition, the enduring intensity of emotion directed against an obstacle, or the clearness of a moving series of ideas is lacking. The deed may emerge from the image of itself without being caused or accompanied by any resolve of the doer. Hearings of criminals are full of statements which point to such a realization of their crimes, and these are often considered self−exculpating inventions, inasmuch as people fear from their truth a disturbance or upsetting of the notions concerning adjudication and actionability. The mere recognition of that psychological fact alters the conventional judgment but little; the failure in these cases consists in not having prevented that automatic transition of images into actions, a transition essentially natural to our organism which ought, however, like so many other things, to be subjected to power of the will." Reflex movements require closer study.[1] The most numerous and generally known are: dropping the eyelids, coughing, sneezing, swallowing, all involuntary actions against approaching or falling bodies; then again the patellar reflex and the kremaster reflex, etc. Other movements of the same kind were once known and so often practiced that they became involuntary.[2] Hence, for example, the foolish question how a person believed to be disguised can be recognized as man or woman. The well known answer is: let some small object fall on his lap; the woman will spread her limbs apart because she is accustomed to wear a dress in which she catches the object; the man will bring his limbs together because he wears trousers and is able to catch the object only in this way. There are so many such habitual actions that it is difficult to say where actual reflexes end and habits begin. They will be properly distinguished when the first are understood as single detached movements and the last as a continuous, perhaps even unconscious and long−enduring action. When I, for example, while working, take a cigar, cut off the end, light it, smoke, and later am absolutely unaware that I have done this, what has occurred is certainly not a reflex but a habitual

action. The latter does not belong to this class in which are to be grouped only such as practically bear a defensive character. As examples of how such movements may have criminological significance only one's own

[1] Berz<e'> in Gross's Archiv, I, 93.

[2] E. Schultze. Zeitschrift f<u:>r Philosophie u. P<a:>dagogie, VI, 1.

<p 80> experience may be cited because it is so difficult to put oneself at the point of view of another. I want to consider two such examples. One evening I passed through an unfrequented street and came upon an inn just at the moment that an intoxicated fellow was thrown out, and directly upon me. At the very instant I hit the poor fellow a hard blow on the ear. I regretted the deed immediately, the more so as the assaulted man bemoaned his misfortune, ``inside they throw him out, outside they box his ears." Suppose that I had at that time burst the man's ear−drum or otherwise damaged him heavily. It would have been a criminal matter and I doubt whether anybody would have believed that it was a ``reflex action," though I was then, as to−day, convinced that the action was reflex. I didn't in the least know what was going to happen to me and what I should do. I simply noticed that something unfriendly was approaching and I met it with a defensive action in the form of an uppercut on the ear. What properly occurred I knew only when I heard the blow and felt the concussion of my hand. Something similar happened to me when I was a student. I had gone into the country hunting before dawn, when some one hundred paces from the house, right opposite me a great ball rolled down a narrow way. Without knowing what it was or why I did it I hit at the ball heavily with an alpenstock I carried in my hand, and the thing emerged as two fighting tomcats with teeth fixed in each other. One of them was my beloved possession, so that I keenly regretted the deed, but even here I had not acted consciously; I had simply smashed away because something unknown was approaching me. If I had then done the greatest damage I could not have been held responsible−− _*if_ my explanation were allowed; but _*that_ it would have been allowed I do not believe in this case, either.

A closer examination of reflex action requires consideration of certain properties, which in themselves cannot easily have criminal significance, but which tend to make that significance clearer. One is the circumstance that there are reflexes which work while you sleep. That we do not excrete during sleep depends on the fact that the faeces pressing in the large intestine generates a reflexive action of the constrictors of the rectum. They can be brought to relax only through especially powerful pressure or through the voluntary relaxation of one's own constrictors.

The second suggestive circumstance is the fact that even habitual reflexes may under certain conditions, especially when a particularly weighty different impression comes at the same time, _*not_ <p 81> take place. It is a reflex, for example, to withdraw the hand when it feels pain, in spite of the fact that one is so absorbed with another matter as to be unaware of the whole process; but if interest in this other matter is so sufficiently fixed as to make one forget, as the saying goes, the whole outer world, the outer impression of pain must have been very intense in order to awaken its proper reflex. The attention may, however, not be disturbed at all and yet the reflex may fail. If we suppose that a reflex action is one brought about through the excitement of an afferent sensory nerve which receives the stimulation and brings it to the center from which the excitement is transferred to the motor series (Landois[1]), we exclude the activity of the brain. But this exclusion deals only with conscious activity and the direct transition through the reflex center can happen successfully only because the brain has been consciously at work innumerable times, so that it is co<o:>perating in the later cases also without our knowing it. When, however, the brain is brought into play through some other particularly intense stimuli, it is unable to contribute that unconscious co<o:>peration and hence the reflex action is not performed. On this point I have, I believe, an instructive and evidential example. One of my maids opened a match−box pasted with paper at the corner by tearing the paper along the length of the box with her thumb−nail. Apparently the box was over−filled or the action was too rapidly made, for the matches flamed up explosively and the whole box was set on fire. What was notable was the fact that the girl threw the box away neither consciously nor instinctively; she shrieked with fright and kept the box in her

hand. At her cry my son rushed in from _*another_ room, and only after he had shouted as loudly as possible, ``Throw it away, drop it,'' did she do so. She had kept the burning thing in her hand long enough to permit my son to pass from one room into another, and her wound was so serious that it needed medical treatment for weeks. When asked why she kept the burning box in her hand in spite of really very terrible pain she simply declared that ``she didn't think of it,'' though she added that when she was told to throw the thing away it just occurred to her that that would be the wisest of all things to do. What happened then was obviously this: fear and pain so completely absorbed the activity of the brain that it was not only impossible for it consciously to do the right thing, it was even unable to assist in the unconscious execution of the reflex.

[1] L. Landois: Lehrbuch der Physiologie des Mensehen. Vienna 1892.

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This fact suggests that the sole activity of the spinal cord does not suffice for reflexes, since if it did, those would occur even when the brain is otherwise profoundly engaged. As they do not so occur the brain also must be in play. Now this distinction is not indifferent for us; for if we hold that the brain acts during reflexes we have to grant the possibility of degrees in its action. Thus where brain activity is in question, the problem of responsibility also arises, and we must hold that wherever a reflex may be accepted as the cause of a crime the subject of the degree of punishment must be taken exceptionally into account. It is further to be noted that as a matter of official consideration the problem of the presence of reflexes ought to be studied, since it rarely occurs that a man says, ``It was purely a reflex action.'' He says, perhaps, ``I don't know how it happened,'' or, ``I couldn't do otherwise,'' or he denies the whole event because he really was not aware how it happened. That the questions are here difficult, both with regard to the taking of evidence, and with regard to the judgment of guilt, is obvious,−− and it is therefore indifferent whether we speak of deficiency in inhibition−centers or of ill−will[1] and malice.

Section 19. (6) *Dress*.

It is easy to write a book on the significance of a man's clothes as the expression of his inner state. It is said that the character of a woman is to be known from her shoe, but actually the matter reaches far beyond the shoe, to every bit of clothing, whether of one sex or the other. The penologist has more opportunity than any one else to observe how people dress, to take notes concerning the wearer, and finally to correct his impressions by means of the examination. In this matter one may lay down certain axioms. If we see a man whose coat is so patched that the original material is no longer visible but the coat nowhere shows a hole; if his shirt is made of the very coarsest and equally patched material but is clean; and if his shoes are very bad but are whole and well polished, we should consider him and his wife as honest people, without ever making an error. We certainly see very little wisdom in our modern painfully attired ``sports,'' we suspect the suggestively dressed woman of some little disloyalty to her husband, and we certainly expect no low inclinations from the lady dressed with intelligent, simple respectability. If a man's general appearance is correct it

[1] Cf. H. Gross's Archiv, II, 140; III, 350; VII, 155; VIII, 198.

<p 83> indicates refinement and attention to particular things. Anybody who considers this question finds daily new information and new and reliable inferences. Anyway, everybody has a different viewpoint in this matter, a single specific detail being convincing to one, to another only when taken in connection with something else, and to a third when connected with still a third phenomenon. It may be objected that at least detailed and prolonged observations are necessary before inferences should be drawn from the way of dressing, inasmuch as a passing inclination, economic conditions, etc., may exert no little influence by compelling an individual to a specific choice in dress. Such influence is not particularly deep. A person subject to a particular inclination may be sufficiently self−exhibiting under given circumstances, and that he was compelled by his situation to dress in one way rather than another is equally self−evident. Has anybody

seen an honest farm hand wearing a worn−out evening coat? He may wear a most threadbare, out−worn sheep−skin, but a dress−coat he certainly would not buy, even if he could get it cheap, nor would he take it as a gift. He leaves such clothes to others whose shabby elegance shows at a glance what they are. Consider how characteristic are the clothes of discharged soldiers, of hunters, of officials, etc. Who fails to recognize the dress of a real clerical, of democrats, of conservative−aristocrats? Their dress is everywhere as well defined as the clothing of Englishmen, Frenchmen, Germans, and Americans, formed not by climatic conditions but by national character in a specific and quite unalterable way. Conceit, carelessness, cleanliness, greasiness, anxiety, indifference, respectability, the desire to attract attention and to be original, all these and innumerable similar and related qualities express themselves nowhere so powerfully and indubitably as in the way people wear their clothes. And not all the clothes together; many a time a single item of dress betrays a character.

Section 20. (7) *Physiognomy and Related Subjects.*

The science of physiognomy belongs to those disciplines which show a decided variability in their value. In classical times it was set much store by, and Socrates, Plato, Aristotle, and Pythagoras were keenly interested in its doctrines. Later on it was forgotten, was studied in passing when Baptista Porta wrote a book about human physiognomy, and finally, when the works of Lavater <p 84> and the closely related ones of Gall appeared, the science came for a short time into the foreground. Lavater's well known monograph[1] excited great attention in his day and brought its author enthusiastic admiration. How much Goethe was interested in it is indicated in the popular book by Von der Hellen and the exchange of letters between Goethe and Lavater. If Lavater had not brought the matter into relation with his mystical and apodictic manner, if he had made more observations and fewer assertions, his fame would have endured longer and he would have been of some use to the science; as it was it soon slipped from people's minds and they turned to the notorious phrenology of Gall. Gall, who to some degree had worked with his friend Spurzheim, committed the same error in his works[2] as Lavater, inasmuch as he lost himself in theories without scientific basis, so that much that was indubitably correct and indicative in his teaching was simply overlooked. His meaning was twice validated, once when B. v. Cotta[3] and R. R. Noel[4] studied it intensively and justly assigned him a considerable worth; the second time when Lombroso and his school invented the doctrine of criminal stigmata, the best of which rests on the postulates of the much−scorned and only now studied Dr. Gall. The great physiologist J. M<u:>ller declared: ``Concerning the general possibility of the principles of Gall's system no a priori objections can be made." Only recently were the important problems of physiognomy, if we except the remarkable work by Schack,[5] scientifically dealt with. The most important and significant book is Darwin's,[6] then the system of Piderit[7] and Carus's ``Symbolik,"[8] all of them being based upon the earlier fundamental work of the excellent English anatomist and surgeon, Bell.[9] Other works of importance are those of LeBrun, Reich, Mantegazza, Dr. Duchenne, Skraup, Magnus, Gessmann, Schebest, Engel, Schneider, K. Michel, Wundt, C. Lange, Giraudet, A. Mosso, A. Baer, Wiener, Lotze, Waitz, Lelut, Monro, Heusinger, Herbart, Comte, Meynert, Goltz, Hughes,

[1] J. K. Lavater: Physiognomische Fragmente zur Bef<o:>rderung des Menschenkentniss und Mensehenliebe. Leipzig 1775.

[2] F. J. Gall: Introduction au Cours du Physiologie du Cerveau. Paris 1808. Recherehes sur la syst<e!>me nerveux. Paris 1809.

[3] B. v. Cotta: Geschichte u. Wesen der Phrenologie. Dresden 1838.

[4] R. R. Noel: Die materielle Grundlage des Seelenbens. Leipzig 1874.

[5] S. Sehack: Physiognomisehe Studien. Jena 1890.

[6] Darwin: Expression of the Emotions in Men and Animals.

[7] Th. Piderit: Wissensehaftliches System der Mimik und Physiognomik. Detmold 1867.

[8] Carus: Symbolik der Menschlichen Gestalt. Leipzig 1858.

[9] C. Bell: Anatomy and Philosophy of Expression. London 1847.

<p 85> Bor<e'>e,[1] etc. The present status of physiognomies is, we must say, a very subordinate one. Phrenology is related to physiognomies as the bony support of the skull to its softer ones, and as a man's physiognomy depends especially upon the conformation of his skull, so physiognomies must deal with the forms of the skull. The doctrine of the movement of physiognomy is mimicry. But physiognomics concerns itself with the features of the face taken in themselves and with the changes which accompany the alterations of consciousness, whereas mimicry deals with the voluntary alterations of expression and gesture which are supposed to externalize internal conditions. Hence, mimicry interests primarily actors, orators, and the ordinary comedians of life. Phrenology remains the research of physicians, anthropologists and psychologists, so that the science of physiognomy as important in itself is left to us lawyers. Its value as a discipline is variously set. Generally it is asserted that much, indeed, fails to be expressed by the face; that what does show, shows according to no fixed rules; that hence, whatever may be read in a face is derivable either instinctively by oneself or not at all. Or, it may be urged, the matter can not be learned.

[1] Le Brun: Conferences sur l'Expression. 1820. Reich: Die Gestalt des Menschen und deren Beziehung zum Seelenleben. Heidelberg 1878. P. Mantegazza. Physiognomik u. Mimik. Leipzig 1890. Duchenne: Mechanismus des Menschlichen Physiognomie. 1862. Skraup: Katechismus der Mimik. Leipzig 1892. H. Magnus: Die Sprache der Augen. Gessmann: Katechismus der Gesichtslesekunst. Berlin 1896. A. Sehebest: Rede u. Geberde. Leipzig 1861. Engel: Ideen zu einer Mimik. Berlin 1785. G. Schneider: Die tierische Wille. 1880. K. Miehel: Die Geberdensprache. K61n 1886. Wundt: Grundz<u:>ge, etc. Leipzig 1894. C. Lange: <U:>ber Gemutsbewegungen. 1887. Giraudet: Mimique, Physiognomie et Gestes. Paris 1895. A. Mosso: Die Furcht. 1889. D. A. Baer: Der Verbreeher. Leipzig 1893. Wiener. Die geistige Welt. Lotze. Medizinisehe Psychologie. Th. Waitz. Anthropologie der Naturv<o:>lker. Leipzig 1877. Lelut: Physiologie de la Pens<e'>e. Monro: Remarks on Sanity. C. F. Heusinger: Grundriss der physiologischen u. psychologisehen Anthropologie. Eisenach 1829. Herbart: Psychologische Untersuchung. G<o:>ttingen 1839. Comte: Systeme de Philosophie Positive. Paris 1824. T. Meynert: Mechanik der Physiognomik. 1888. F. Goltz: <U:>ber Moderne Phrenologie. Deutsehe Rundschau Nov. − Dec. 1885. H. Hughes: Die Mimik des Menschen auf Grund voluntariseher Psychologie Frankfurt a. M. 1900. A. Bor<e'>e: Physiognom. Studien. Stuttgart 1899.

<p 86> Such statements, as ways of disposing of things, occur regularly wherever there is a good deal of work to do; people do not like to bother with troublesome problems and therefore call them worthless. But whoever is in earnest and is not averse to a little study will get much benefit from intensive application to this discipline in relation to his profession.

The right of physiognomies to the status of an independent science is to some degree established in the oft−repeated dictum that whatever is valid in its simplest outline must be capable of extension and development. No man doubts that there are intelligent faces and foolish ones, kind ones and cruel ones, and if this assertion is admitted as it stands it must follow that still other faces may be distinguished so that it is possible to read a certain number of spiritual qualities from the face. And inasmuch as nobody can indicate the point at which this reading of features must cease, the door is opened to examination, observation and the collection of material. Then, if one bewares of voluntary mistakes, of exaggeration and unfounded assertion, if one builds only upon actual and carefully observed facts, an important and well−grounded discipline must ensue.

The exceptionally acute psychiatrist Meynert shows[1] how physiognomics depends on irradiation and parallel images. He shows what a large amount of material having physiognomical contents we keep in mind. Completely valueless as are the fixed forms by which mankind judges the voluntary acts of its individual

members, they point to the universal conclusion that it is proper to infer from the voluntary acts of a person whose features correspond to those of another the voluntary acts of the other. One of Hans Virchow's very detailed physiognomical observations concerning the expression of interest in the eyes by means of the pupil, has very considerable physiognomical value. The pupil, he believes, is the gate through which our glance passes into the inner life of our neighbor; the psychical is already close at hand with the word ``inner." How this occurs, why rather this and not another muscle is innervated in the development of a certain process, we do not know, but our ignorance does not matter, since ultimately a man might split his head thinking why we do not hear with our eyes and see with our ears. But to some extent we have made observable progress in this matter. As far back as 1840 J. M<u:>ller[2] wrote: ``The reasons are unknown why various psychoses make use of different groups of nerves or why

[1] Psychiatrie. Vienna 1884.

[2] J. M<u:>ller: Handbuch der Physiologie des Menschen. 1840.

<p 87> certain facial muscles are related to certain passions." Gratiolet[1] thought it necessary forty years ago to deny that muscles were developed merely for the purpose of expression. Almost contemporaneously Piderit knew that expressive muscular movements refer partly to imaginary objects and partly to imaginary sense impressions. In this fact lies the key to the meaning of all expressive muscular movements. Darwin's epoch−making book on the expressions of the emotions finally established the matter so completely and firmly, that we may declare ourselves in possession of enough material for our purpose to make it possible to carry our studies further. The study of this book of Darwin's I believe absolutely necessary to each criminalist−−for he meets in every direction, expositions and explanations that are related to cases he has already experienced in practice or is sure to experience. I present here only a few of Darwin's most important notes and observations in order to demonstrate their utility for our purpose.

As subjects for study he recommends children because they permit forms of expression to appear vigorously and without constraint; lunatics, because they are subject to strong passions without control; galvanized persons, in order to facilitate the muscles involved, and finally, to establish the identity of expression among all races of men and beasts. Of these objects only children are important for our purpose. The others either are far removed from our sphere of activity, or have only theoretic value. I should, however, like to add to the subjects of observation another, viz., the simple unstudied persons, peasants and such otherwise unspoiled individuals whom we may believe innocent of all intention to play a comedy with us. We can learn much from such people and from children. And it is to be believed that in studying them we are studying not a special class but are establishing a generally valid paradigm of the whole of mankind. Children have the same features as adults only clearer and simpler. For, suppose we consider any one of Darwin's dicta,−−e. g., that in the expression of anger and indignation the eyes shine, respiration becomes more rapid and intense, the nostrils are somewhat raised, the look misses the opponent,−− these so intensely characteristic indices occur equally in the child and the adult. Neither shows more or fewer, and once we have defined them in the child we have done it for the adult also. Once the physiognomy of children and simple people has been studied,

[1] L. P. Gratiolet: De la Physiognomie et des Mouvements d'Expression. Paris 1865.

<p 88> the further study of different kinds of people is no longer difficult; there is only the intentional and customary masking of expression to look out for; for the rest, the already acquired principles, mutandis mutatis, are to be used.

Darwin posits three general principles on which most expressions and gestures are to be explained. They are briefly:

I. The principle of purposeful associated habits.

II. The principle of contradication.

III. The principle of the direct activity of the nervous system.

With regard to the first. When, in the course of a long series of generations, any desire, experience, or disinclination, etc., has led to some voluntary action, then, as often as the same or any analogous associated experience is undergone, there will arise a tendency to the realization of a similar action. This action may no longer have any use but is inherited and generally becomes a mere reflex.

This becomes clearer when one notices how often habit facilitates very complex action:−−the habits of animals; the high steps of horses; the pointing of pointers; the sucking of calves, etc. It is difficult for us in falling to make opposite movements to stretching out the arms, even in bed; we draw on our gloves unconsciously. Gratiolet says: ``Whoever energetically denies some point, etc., shuts his eyes; if he assents he nods and opens his eyes wide. Whoever describes a terrible thing shuts his eyes and shakes his head; whoever looks closely raises his eye−brows. In the attempt to think the same thing is done or the eye−brows are contracted−− both make the glance keener. Thence follows the reflex activity."

With regard to the second. Dogs who are quarrelling with cats assume the appearance of battle−−if they are kindly−minded they do the opposite, although this serves no purpose. M. Taylor[1] says, that the gesture language of the Cistercians depends considerably on antithesis; e. g., shrugging the shoulders is the opposite of firmness, immovability.

With regard to the direct activity of the nervous system, examples are paling, trembling (fear, terror, pain, cold, fever, horror, joy), palpitation of the heart, blushing, perspiring, exertion of strength, tears, pulling the hair, urinating, etc. With these subdivisions it will be possible to find some thoroughfare and to classify every phenomenon.

We want to discuss a few more particulars in the light of Darwin's

[1] Taylor: Early History of Mankind.

<p 89> examples. He warns us, first of all, against seeing[1] certain muscle movements as the result of emotional excitement, because they were looked for. There are countless habits, especially among the movements of the features, which happen accidentally or as the result of some passing pain and which have no significance. Such movements are often of the greatest clearness, and do not permit the unexperienced observer to doubt that they have important meanings, although they have no relation whatever to any emotional condition. Even if it is agreed only to depend on changes of the whole face; already established as having a definite meaning, there is still danger of making mistakes, because well accredited facial conditions may occur in another way (as matters of habit, nervous disturbances, wounds, etc.). Hence in this matter, too, care and attention are required; for if we make use of any one of the Darwinian norms, as, for example, that the eyes are closed when we do not want to see a thing or when we dislike it, we still must grant that there are people to whom it has become habitual to close their eyes under other and even opposed conditions.

We must grant that, with the exception of such cases, the phenomena are significant during examinations, as when we show the accused a very effective piece of evidence, (e. g.: a comparison of hand−writings which is evidential,) and he closes his eyes. The act is then characteristic and of importance, particularly when his words are intended to contest the meaning of the object in question. The contradiction between the movement of his eyes and his words is then suggestive enough. The same occurs when the accused is shown the various possibilities that lie before him−−the movement of the examination, the correlations and consequences. If he finds them dangerous, he closes his eyes. So with witnesses also; when one of them, e. g., deposes to more, and more harmfully, than according to our own notion he can explain, he will close his eyes, though perhaps for an instant only, if the inevitable consequences of his deposition are expounded to him. If he closes his eyes

he has probably said too much, and the proper moment must not be missed to appeal to his conscience and to prevent more exaggerated and irresponsible assertions.

This form of closing the eyes is not to be confused with the performances of persons who want to understand the importance of their depositions and to collect their senses, or who desire to review

[1] J. Reid: The Muscular Sense. Journal of Mental Science, XLVII, 510.

<p 90> the story mentally and consider its certainty. These two forms of closing the eyes are different: the first, which wants to shut out the consequences of testimony, is much shorter; the latter longer, because it requires a good deal of time to collect one's senses and to consider a problem. The first, moreover, is accompanied by a perceivable expression of fear, while the latter is manifest only by its duration; what is most important is a characteristic contemporary and perceivable defensive movement of the hand, and this occurs only in the cases where the desire is to exclude. This movement occurs even among very phlegmatic persons, and hence is comparatively reliable; it is not made by people who want undisturbedly to study a question and to that end shut their eyes.

In a similar way there is significance in the sudden closing of the mouth by either the accused or the witness. Resolution and the shutting of the mouth are inseparable; it is as impossible to imagine a vacillating, doubting person with lips closely pressed together, as a firm and resolute person with open mouth. The reason implies Darwin's first law: that of purposeful associated habits. When a man firmly resolves upon some deed the resolution begins immediately to express itself in movements which are closely dependent upon bodily actions. Even when I suddenly resolve to face some correctly− supposed disagreeable matter, or to think about some joyless thing, a bodily movement, and indeed quite an energetic one, will ensue upon the resolution−−I may push my chair back, raise my elbows, perhaps put my head quickly between my hands, push the chair back again, and then begin to look or to think. Such actions, however, require comparatively little bodily exertion; much more follows on different types of resolutions−−in short, a firm resolution requires a series of movements immediately to follow its being made. And if we are to move the muscles must be contracted. And it is, of course, obvious that only those muscles can be set in action which are, according to the immediate situation of the body, free to move. If we are sitting down, for example, we can not easily make our feet conform to the movement of a march forward; nor can we do much with the thighs, hence the only muscles we can use are those of the face and of the upper limbs. So then, the mouth is closed because its muscles are contracted, and with equal significance the arms are thrust outward sharply, the fist clenched, and the fore−arm bent. Anybody may try the experiment for himself by going through the actions enumerated and seeing whether he does not become filled <p 91> with a sense of resolution. It is to be especially observed, as has already been indicated, that not only are mental states succeeded by external movements, but imitated external movements of any kind awaken, or at least plainly suggest, their correlated mental states.

If, then, we observe in any person before us the signs of resolution we may certainly suppose that they indicate a turn in what he has said and what he is going to say. If they be observed in the accused, then he has certainly resolved to pass from denial to confession, or to stick to his denial, or to confess or keep back the names of his accomplices, the rendezvous, etc. Inasmuch as in action there is no other alternative than saying or not saying so, it might be supposed that there is nothing important in the foregoing statement; the point of importance lies, however, in the fact that a _*definite_ resolution has been reached of which the court is aware and from which a departure will hardly be made. Therefore, what follows upon the resolution so betrayed, we cannot properly perceive; we know only that it in all likelihood consists of what succeeds it, i. e. the accused either confesses to something, or has resolved to say nothing. And that observation saves us additional labor, for he will not easily depart from his resolution.

The case is analogous with regard to the witness who tells no truth or only a part of the truth. He reveals the marks of resolution upon deciding finally to tell the truth or to persist in his lying, and so, whatever he does after the marks of resolution are noted, we are saved unnecessary effort to make the man speak one way or

another.

It is particularly interesting to watch for such expressions of resolution in jurymen, especially when the decision of guilt or innocence is as difficult as it is full of serious consequences. This happens not rarely and means that the juryman observed is clear in his own mind as to how he is going to vote. Whatever testimony may succeed this resolution is then indifferent. The resolved juryman is so much the less to be converted, as he usually either pays no more attention to the subsequent testimony, or hears it in such prejudiced fashion that he sees everything in his own way. In this case, however, it is not difficult to tell what the person in question has decided upon. If the action we now know follows a very damaging piece of testimony, the defendant is condemned thereby; if it follows excusive testimony he is declared innocent. Anybody who studies the matter may observe that these manifestations are <p 92> made by a very large number of jurymen with sufficient clearness to make it possible to count the votes and predict the verdict. I remember vividly in this regard a case that occurred many years ago. Three men, a peasant and his two sons, were accused of having killed an imbecile who was supposed to have boarded in their house. The jury unanimously declared them guiltless, really because of failure, in spite of much effort, to find the body of the victim. Later a new witness appeared, the case was taken up again, and about a year after the first trial, a second took place. The trial consumed a good many days, in which the three defendants received a flood of anonymous letters which called attention mostly to the fact that there was in such and such a place an unknown imbecile woman who might be identical with the ostensible murdered person. For that reason the defendant appealed for a postponement of the trial or immediate liberation. The prosecutor of the time fought the appeal but held that so far as the case went (and it was pretty bad for the prosecution), the action taken with regard to the appeal was indifferent. ``The mills of the gods grind slowly," he concluded in his oration; ``a year from now I shall appear before the jury." The expression of this rock−bound conviction that the defendants were guilty, on the part of a man who, because of his great talent, had tremendous influence on juries, caused an astounding impression. The instant he said it one could see in most of the jurymen clearest signs of absolute resolution and the defendants were condemned from that moment.

Correlated with the signs of resolution are those of astonishment. ``The hands are raised in the air," says Darwin, ``and the palm is laid on the mouth." In addition the eyebrows are regularly raised, and people of not too great refinement beat their foreheads and in many cases there occurs a slight, winding movement of the trunk, generally toward the left. The reason is not difficult to find. We are astonished when we learn something which causes an inevitable change in the familiar course of events. When this occurs the hearer finds it necessary, if events are simple, properly to get hold of it. When I hear that a new Niebelungen manuscript has been discovered, or a cure for leprosy, or that the South Pole has been reached, I am astonished, but immediate conception on my part is altogether superfluous. But that ancient time in which our habitual movements came into being, and which has endured longer, incomparably longer than our present civilization, knew nothing whatever of these interests of the modern civilized human being. <p 93> What astonished people in those days were simple, external, and absolutely direct novelties: that a flood was coming, that game was near the camp, that inimical tribes had been observed, etc.−−in short, events that required immediate action. From this fact spring our significant movements which must hence be perceivably related to the beginning of some necessary action. We raise our hands when we want to jump up; we elevate our eyebrows when we look up, to see further into the distance; we slap our foreheads in order to stimulate the muscles of our legs, dormant because of long sitting; we lay the palms of our hands on our mouths and turn the trunk because we discover in the course of life rather more disagreeable than pleasant things and hence we try to keep them out and to turn away from them. And astonishment is expressed by any and all of these contradictory movements.

In law these stigmata are significant when the person under examination ought to be astonished at what is told him but for one reason or another does not want to show his astonishment. This he may hide in words, but at least one significant gesture will betray him and therefore be of considerable importance in the case. So, suppose that we present some piece of evidence from which we expect great results; if they do not come we may perhaps have to take quite another view of the whole case. It is hence important not to be fooled about

the effect, and that can be accomplished only through the observation of the witnesses' gestures, these being much more rarely deceptive than words.

Scorn manifests itself in certain nasal and oral movements. The nose is contracted and shows creases. In addition you may count the so−called sniffing, spitting, blowing as if to drive something away; folding the arms, and raising the shoulders. The action seems to be related to the fact that among savage people, at least, the representation of a worthless, low and despicable person is brought into relation with the spread of a nasty odor: the Hindoo still says of a man he scorns, ``He is malodorous." That our ancestors thought similarly, the movement of the nose, especially raising it and blowing and sniffing, makes evident. In addition there is the raising of the shoulders as if one wanted to carry the whole body out of a disgusting atmosphere−−the conduct, here, is briefly the conduct of the proud. If something of the sort is observable in the behavior of a witness it will, as a rule, imply something good about him: the accused denies thereby his identity with the criminal, or he has no other way of indicating the testimony of some damaging <p 94> witness as slander, or he marks the whole body of testimony, with this gesture, as a web of lies.

The case is similar when a witness so conducts himself and expresses scorn. He will do the latter when the defendant or a false witness for the defense accuses him of slander, when indelicate motives are ascribed to him, or earlier complicity with the criminal, etc. The situations which give a man opportunity to show that he despises anybody are generally such as are to the advantage of the scorner. They are important legally because they not only show the scorner in a good light but also indicate that the scorn must be studied more closely. It is, of course, naturally true that scorn is to a great degree simulated, and for that reason the gestures in question must be attentively observed. Real scorn is to be distinguished from artificial scorn almost always by the fact that the latter is attended by unnecessary smiling. It is popularly and correctly held that the smile is the weapon of the silent. That kind of smile appears, however, only as defense against the less serious accusations, or perhaps even more serious ones, but obviously never when evil consequences attendant on serious accusations are involved. If indubitable evil is in question, no really innocent person smiles, for he scorns the person he knows to be lying and manifests other gestures than the smile. Even the most confused individual who is trying to conceal his stupidity behind a flat sort of laughter gives this up when he is so slandered that he is compelled to scorn the liar; only the simulator continues to smile. If, however, anybody has practiced the manifestation of scorn he knows that he is not to smile, but then his pose becomes theatrical and betrays itself through its exaggeration.

Not far from scorn are defiance and spite. They are characterized by baring the canine teeth and drawing together the face in a frown when turning toward the person upon whom the defiance or spite is directed. I believe that this image has got to be variously filled out by the additional fact that the mouth is closed and the breath several times forced sharply through the nostrils. This arises from the combination of resolution and scorn, these being the probable sources of defiance and spite. As was explained in the discussion of resolution, the mouth is bound to close; spite and defiance are not thinkable with open mouth. Scorn, moreover, demands, as we have shown, this blowing, and if the blowing is to be done while the mouth is closed it must be done through the nose.

Derision and depreciation show the same expressions as defiance <p 95> and spite, but in a lesser degree. They all give the penologist a good deal to do, and those defendants who show defiance and spite are not unjustly counted as the most difficult we have to deal with. They require, above all, conscientious care and patience, just indeed because not rarely there are innocents among them. This is especially so when a person many times punished is accused another time, perhaps principally because of his record. Then the bitterest defiance and almost childish spite takes possession of him against ``persecuting" mankind, particularly if, for the nonce, he is innocent. Such persons turn their spite upon the judge as the representative of this injustice and believe they are doing their best by conducting themselves in an insulting manner and speaking only a few defiant words with the grimmest spite. Under such circumstances it is not surprising that the inexperienced judge considers these expressions as the consequences of a guilty conscience, and that the spiteful person may blame himself for the results of his defiant conduct. He therefore pays no more attention

to the unfortunate. How this situation may lead to an unjust sentence is obvious. But whether the person in question is guilty or not guilty, it is the undeniable duty of the judge to make especial efforts with such persons, for defiance and spite are in most cases the result of embitterment, and this again comes from the disgusting treatment received at the hands of one's fellows. And it is the judge's duty at least not to increase this guilt if he can not wipe it away. The only, and apparently the simplest, way of dealing with such people is the patient and earnest discussion of the case, the demonstration that the judge is ready carefully to study all damaging facts, and even a tendency to refer to evidence of innocence in hand, and a not over−energetic discussion of the man's possible guilt. In most cases this will not be useful at the beginning. The man must have time to think the thing over, to conceive in the lonely night that it is not altogether the world's plan to ruin him. Then when he begins to recognize that he will only hurt himself by his spiteful silence if he is again and again examined he will finally be amenable. Once the ice is broken, even those accused who at the beginning showed only spite and defiance, show themselves the most tractable and honest. The thing needful above all is patience.

Real rage, unfortunately, is frequent. The body is carried erect or thrown forward, the limbs become stiff, mouth and teeth closely press together, the voice becomes very loud or dies away or grows hoarse, the forehead is wrinkled and the pupil of the eye contracted; <p 96> in addition one should count the change of color, the flush or deep pallor. An opportunity to simulate real rage is rare, and anyway the characteristics are so significant that a mistake in recognition can hardly be made. Darwin says that the conviction of one's own guilt is from time to time expressed through a sparkling of the eyes, and through an undefinable affectation. The last is well known to every penologist and explicable in general psychological terms. Whoever knows himself to be guiltless behaves according to his condition, naturally and without constraint: hence the notion that na<i:>ve people are such as represent matters as they are. They do not find anything suspicious in them because they do not know about suspicious matters. But persons who know themselves guilty and try not to show it, must attain their end through artifice and imitation, and when this is not well done the affectation is obvious.

There is also something in the guilty sparkle of the eye. The sparkle in the eyes of beauty, the glance of joy, of enthusiasm, of rapture, is not so poetical as it seems, inasmuch as it is no more than intensified secretion of tears. The latter gets its increase through nervous excitation, so that the guilty sparkle should also be of the same nature. This may be considered as in some degree a flow of tears in its first stages.

An important gesture is that of resignation, which expresses itself especially as folding the hands in one's lap. This is one of the most obvious gestures, for ``folding the hands in the lap" is proverbial and means there is no more to be done. The gesture signifies, therefore, ``I'm not going to do any more, I can't, I won't." Hence it must be granted that the condition of resignation and its gesture can have no significance for our own important problem, the problem of guilt, inasmuch as the innocent as well as the guilty may become resigned, or may reach the limit at which he permits everything to pass without his interference. In the essence and expression of resignation there is the abandonment of everything or of some particular thing, and in court, what is abandoned is the hope to show innocence, and as the latter may be real as well as merely pleaded, this gesture is a definite sign in certain cases. It is to be noted among the relations and friends of a defendant who, having done everything to save him, recognize that the evidence of guilt is irrefutable. It is again to be noticed among courageous lawyers who, having exerted all their art to save their clients, perceive the failure of their efforts. And finally, the defendants show it, who <p 97> have clearly recognized the danger of their case. I believe that it is not an empirical accident that the gesture of resignation is made regularly by innocent persons. The guilty man who finds himself caught catches at his head perhaps, looks toward heaven gritting his teeth, rages against himself, or sinks into a dull apathy, but the essential in resignation and all its accompanying movements is foreign to him. Only that conforms to the idea of resignation which indicates a surrender, the cession of some value that one has a claim on−−if a man has no claim to any given thing he can not resign it. In the same way, a person without right to guiltlessness and recognition, will instinctively not surrender it with the emotion of resignation, but at most with despair or anger or rage. And it is for this reason that the guilty do not exhibit gestures of resignation.

The contraction of the brow occurs in other cases besides those mentioned. Before all it occurs when anything is dealt with intensively, increasing with the increase of the difficulty of the subject. The aboriginal source of this gesture lies in the fact that intensive activities involve the need of acuter vision, and this is in some degree acquired by the contraction of the skin of the forehead above the eyebrows; for vision is clarified in this way. Intensive consideration on the part of a defendant or a witness, and the establishment of its reality or simulation, are significant in determining whether he himself believes the truth of what is about to be explained. Let us suppose that the issue involves proving an alibi on a certain definite, rather remote day, and the defendant is required to think over his whereabouts on that day. If he is in earnest with regard to the establishment of his alibi, i. e. if he really was not there and did not do the thing, it will be important for him to remember the day in question and to be able to name the witnesses of his whereabouts then. Hence he will think intensively. But if he has claimed an alibi dishonestly, as is frequent with criminals, in order to make people conclude that nobody has the right to demand where and for how long a time he was on such and such a day, then there is no need of thinking closely about something that has not happened. He exhibits in such cases a kind of thoughtfulness, which is not, however, earnest and profound: and these two adjectives describe _*real_ consideration. The same observations are to be made in regard to dishonest witnesses who, when pressed to think hard, only simulate doing so. One is compelled at the very least to look closely after the witness who simply imitates intensive <p 98> thinking without showing the signs proper to it. The suspicion of false testimony is then justifiable.

A rather different matter is that blank expression of the eyes which only shows that its possessor is completely lost in his thoughts −−this has nothing to do with sharp recollection and demands above all things being let alone or the belief of being so. In this case no distinguishing gestures are made, though the forehead, mouth or chin may be handled, only, however, when embarrassment occurs−− i. e. when the man observes that he is being watched, or when he discovers that he has forgotten the presence of other people. It is supposed that this does not occur in court, but it does happen not infrequently when, for example, the judge, after some long discussion with the accused, is about to dictate what has been said. If this takes rather a long time, it may chance that the witness is no longer listening but is staring vacantly into the distance. He is then reviewing his whole life or the development and consequences of his deed. He is absorbed in a so−called intuitive thought, in the reproduction of events. Intensive consideration requires the combination of particulars and the making of inferences; hence the form of thinking we have just been speaking of is merely spiritual sightseeing. It is when this takes place that confessions are most easy to get, if only the judge keeps his eyes properly open.

That contraction of the brow signifies a condition of disgust is well known, but there is yet, as I believe, a still other use of this contraction−−i. e. its combination with a smile, indicating disbelief. How this union occurred seems comparatively undiscoverable−− perhaps it results from the combination of the smile of denial with the frown of sharp observation. But the gesture is, in any event, reliable, and may not easily stand for anything but disbelief and doubt. Hence it is always a mistake to believe that anybody who makes that expression believes what he has heard. If you test it experimentally you will find that when you make it you say involuntarily to yourself: ``Well now, that can't be true," or ``Look here, that's a whopper!" or something like that. The expression occurs most frequently in confronting witnesses with defendants and especially witnesses with each other.

The close relation of the contraction of the brow with its early stage, a slight elevation of the eyebrows, is manifest in the fact that it occurs under embarrassment−−not very regularly but almost always upon the perception of something foreign and inexplicable, or upon getting twisted in one's talk; in fact, upon all such conditions <p 99> which require greater physical and psychical clearness of vision, and hence the shutting out of superfluous light. The expression may be important on the face of a defendant who asserts,−−e. g.−− that he does not understand an argument intended to prove his guilt. If he is guilty he obviously knows what happened in the commission of the crime and thereby the argument which reproduces it, and even if he assures the court a hundred times that he does not understand it, he is either trying to show himself innocent or wants to gain time for his answer. If he is innocent it may be that he really does not understand the argument because he is unaware of the actual situation. Hence he will frown and listen attentively at the very beginning

of the argument. The guilty person perhaps also aims to appear enormously attentive, but he does not contract his brow, because he does not need to sharpen his glance; he knows the facts accurately enough without it. It is important for the penologist to know whether a man has in the course of his life undergone much anxiety and trouble, or whether he has lived through it carelessly. Concerning these matters Darwin points out that when the inner ends of the eyebrows are raised certain muscles have to be contracted (i. e. the circular ones which contract the eyebrows and the pyramidal muscle of the nose, which serve both to pull down and contract the eyelids). The contraction is accomplished through the vigorous drawing together of the central bundle of muscles at the brow. These muscles, by contracting, raise the inner ends of the brow, and since the muscles which contract the eyebrows bring them together at the same time, their inner ends are folded in great lumpy creases. In this way short oblique, and short perpendicular furrows are made. Now this, few people can do without practice; many can never perform it voluntarily, and it is more frequent among women and children than among men. It is important to note that it is always a sign of spiritual pain, not physical. And curiously enough it is as a rule related with drawing down the corners of the mouth.

Further to study the movements of the features will require an examination into the reasons for the action of these, and not other muscles, as accompaniments of the psychical states. Piderit holds it is due to the fact that the motor nerves which supply these muscles rise right next to the purely psychical centers and hence these muscles are the supports of the organs of sense. The latter is no doubt correct, but the first statement is rather doubtful. In any event it is evident that the features contain an exceptionally large number <p 100> of fine muscles with especially rich motor capacity, and hence move together and in accordance with the psychical conditions. It may be that the other muscles of the body have also a share in this but that we fail to perceive the fact. Such movements, however, have not been essential.

We may take it as a general rule that all joyous and uplifting emotions (even astonishment) are succeeded by the raising of the skin of the forehead, the nostrils, the eyes, the eyelids, while sad and oppressing emotions have the contrary effect. This simple and easy rule renders immediately intelligible many an otherwise obscure expression which we find important but concerning the meaning of which we are in doubt. The development of a movement in any face goes, according to Harless,[1] in this fashion: ``The superior motor nerve is the oculomotorius. The stimulation reaches this one first−−the mildest alteration of emotion betrays itself most rapidly in the look, the movement and condition of the pupil of the eye. If the impulse is stronger it strikes the roots of the motor end of the trigeminus and the movement of the muscles of mastication occur; then the intensified affection spreads through the other features." Nobody will, of course, assert that even a completely developed physiognomical science will help us over all our difficulties, but with a little attention it can help us to a considerable degree. This help we do need, as La Rochefoucauld points out, with even contemporary correctness, ``It is easier to know men than to know a particular man."

Section 21. (8) *The Hand*.

The physiognomy of the hand stands close to that of the face in significance and is in some relations of even greater importance, because the expression of the hand permits of no, or very slight, simulation. A hand may be rendered finer or coarser, may be rendered light or dark, the nails may be cared for or allowed to develop into claws. The appearance of the hand may be altered, but not its physiognomy or character. Whoever creases his face in the same way for a thousand times finally retains the creases and receives from them a determinate expression even if this does not reveal his inner state; but whoever does the same thing a thousand times with his hand does not thereby impress on it a means of identification. The frequent Tartuffian rolling of the eyes finally gives the face a pious or at least pietistic expression, but fold your hands in

[1] Wagner's Handw<o:>rterbuch, III, i.

<p 101> daily prayer for years and nobody would discover it from them. It seems, however, of little use to know that human hands can not be disguised, if they are little or not at all differentiated; but as it happens they are, next to the face, the most extremely and profoundly differentiated of human organs; and a general law

teaches us that different effects are produced by different causes, and that from the former the latter may be inferred. If then we observe the infinite variety of the human hand we have to infer an equally infinite variety of influences, and inasmuch as we cannot trace these influences any further we must conclude that they are to be explained causally by the infinite variety of psychical states.

Whoever studies the hand psychologically gains in the course of time a great deal of faith in what the hand tells him. And finally he doubts it only when chirognomy conflicts with physiognomy. If in such cases it is observed that the hand is more likely to be correct than the face, and that inferences from the hand more rarely show themselves to be false, one is reminded of the dictum of Aristotle, ``The hand is the organ of organs, the instrument of instruments in the human body." If this is correct, the favored instrument must be in the closest kind of relation with the psyche of the owner, but if this relation exists there must be an interaction also. If the hand contained merely its physical structure, Newton would never have said, ``Other evidence lacking, the thumb would convince me of God's existence."

How far one ought to establish fundamental propositions in this matter, I can not easily say. Perhaps it would be scientifically most correct to be satisfied for the time with collecting the carefully and keenly observed material and getting the anatomists, who are already in need of material for professional investigations, to take the matter up; in collecting photographs of hands belonging to persons whose characters are well known and in getting a sufficient number of properly equipped persons to make the collection. If we had enough material to draw fundamental principles from, much that has been asserted by Bell, Carus, D'Arpentigny, Allen, Gessmann, Liersch, Landsberg,[1] etc., might be proved and tested. But their statements

[1] C. Bell: The Human Hand. London 1865. K. G. Carus: <U:>ber Grund u. Bedeutung der verschiedenen Hand. Stuttgart 1864. D'Arpentigny: La Chirognomie. Paris 1843. Allen. Manual of Cheirosophy. London 1885. Gessman: Die M<a:>nnerhand, Die Frauenhand, Die Kinderhand. Berlin 1892, 1893, 1894. Liersch. Die linke Hand. Berlin 1893. J. Landsberg: Die Wahrsagekunst aus der Menschlichen Gestalt. Berlin 1895.

<p 102> are still subject to contradiction because their fundamental principles are not sufficient for the development of a system. Probably nobody will doubt some of the more common statements; all will grant with Winkelmann that a beautiful hand is in keeping with a beautiful soul; or with Balzac that people of considerable intellect have handsome hands, or in calling the hand man's second face. But when specific co−ordinations of the hand are made these meet with much doubt. So for example, Esser[1] calls the *elementary* hand essentially a work hand, the *motor* essentially a masculine hand, having less soul and refinement of character than will and purposefulness. So again the *sensitive* hand implies generally a sanguine character, and the *psychic* hand presents itself as the possession of beautiful souls and noble spirits.

However true this classification may be, the establishment and description of the various significatory signs is very difficult, especially because the forms named rarely appear in clear and sharply defined subdivisions. The boundaries are fluid, like the characters themselves, and where the properties of one group pass almost directly into the other, both description and recognition are difficult. If, then, we can not depend upon a systematic, and at present remote treatment, we still may depend on well−founded observations which appear as reliable presuppositions in the light of their frequent repetition.

Not essentially psychological but of importance for the criminalist are the inferences we may draw from Herbert Spencer's assertion that people whose ancestors have worked with their hands possess heavy hands. Conversely, people whose ancestors have not worked hard with their hands possess small and fine hands. Hence the small delicate hands of Jews, the frequent perfection of form and invariable smallness of the hands of Gypsies, who have inherited their hands from high−cast Hindoos, and the so−called racial hands of real aristocrats. That hard work, even tumbling, piano playing, etc., should alter the form of a hand is self−evident, since muscles grow stronger with practice and the skin becomes coarser and drawn through friction, sharp wind and insufficient care. As is well known, physical properties are hereditary and observable in any study of races; is it any wonder that a skilled glance at a man's hand may uncover a number of facts concerning the

circumstances of his life? Nobody doubts that there are raw, low, sensual, fat hands. And who does not know the suffering, spiritual, refined, and delicate

[1] W. Esser: Psychologie. M<u:>nster 1854.

<p 103> hand? Hands cannot of course be described and distinguished according to fixed classification, and no doubt Hellenbach was right when he said, ``Who can discover the cause of the magic charm which lies in one out of a hundred thousand equally beautiful hands?"

And this is remarkable because we are not fooled through a well cared for, fine and elegant hand. Everybody, I might say, knows the convincing quality that may lie in the enormous leathery fist of a peasant. For that, too, is often harmoniously constructed, nicely articulated, appears peaceful and trustworthy. We feel that we have here to do with a man who is honest, who presents himself and his business as they are, who holds fast to whatever he once gets hold of, and who understands and is accustomed to make his words impressive. And we gain this conviction, not only through the evidence of honest labor, performed through years, but also through the stability and determination of the form of his hands. On the other hand, how often are we filled with distrust at the sight of a carefully tended, pink and white hand of an elegant gentleman−− whether because we dislike its condition or its shape, or because the form of the nails recalls an unpleasant memory, or because there is something wrong about the arrangement of the fingers, or because of some unknown reason. We are warned, and without being hypnotised, regularly discover that the warning is justified. Certain properties are sure to express themselves: coldness, prudence, hardness, calm consideration, greed, are just as indubitable in the hand as kindness, frankness, gentleness, and honesty.

The enchantment of many a feminine hand is easily felt. The surrender, the softness, the concession, the refinement and honesty of many a woman is so clear and open that it streams out, so to speak, and is perceivable by the senses.

To explain all this, to classify it scientifically and to arrange it serially, would be, nowadays at least, an unscientific enterprise. These phenomena pass from body to body and are as reliable as inexplicable. Who has never observed them, and although his attention has been called to them, still has failed to notice them, need not consider them, but persons believing in them must be warned against exaggeration and haste. The one advice that can be given is to study the language of the hand before officially ignoring it; not to decide immediately upon the value of the observations one is supposed to have made, but to handle them cautiously and to test them with later experiences. It is of especial interest to trace <p 104> the movement of the hand, especially the fingers. I do not mean those movements which are external, and co−ordinate with the movements of the arm; those belong to mimicry. I mean those that begin at the wrist and therefore occur in the hand only. For the study of those movements the hand of childhood is of little use, being altogether too untrained, unskilled, and neutral. It shows most clearly the movement of the desire to possess, of catching hold and drawing toward oneself, generally toward the mouth, as does the suckling child its mother's breast. This movement, Darwin has observed even among kittens.

The masculine hand is generally too heavy and slow, clearly to exhibit the more refined movements; these are fully developed only in the feminine, particularly in the hands of vivacious, nervous, and spiritually excitable women. The justice who observes them may read more than he can in their owner's words. The hand lies in the lap apparently inert, but the otherwise well concealed anger slowly makes a fist of it, or the fingers bend characteristically forward as if they wished to scratch somebody's eyes out. Or they cramp together in deep pain, or the balls of the four other fingers pass with pleasure over the ball of the thumb, or they move spasmodically, nervously, impatiently and fearfully, or they open and close with characteristic enjoyment like the paws of cats when the latter feel quite spry.

Closer observation will show that toes reveal a great deal, particularly among women who wear rather fine shoes and hence can move their feet with greater ease. In anger, when they cannot, because it would be

suggestive, stamp their feet, the women press their toes closely to the ground. If they are embarrassed they turn the sole of their shoe slightly inwards and make small curves with the point on the ground. Impatience shows itself through alternating and swinging pressure of heel and toe, repeated with increasing rapidity; defiance and demand through raising the toes in such a way that the sole is directly forward and the foot rests only on the heel. Sensuality is always indicated when the foot is put forward and the shin bone lightly stretched out, when all the toes are drawn in toward the sole just as the cat does when she feels good. What women do not say in words and do not express in their features and do not indicate in the movement of their hands, they say with their feet; the inner experience must express itself externally and the foot most betrays it.

In conclusion it ought to be kept in mind that the hands of all <p 105> those people who claim to be hard workers but who really try to live without work, i. e. thieves, gamblers, etc., ought to be carefully examined. Concerning the value of graphology see my ``Manual for Examining Judges."

TITLE B. THE CONDITIONS FOR DEFINING THEORIES.

Topic I. THE MAKING OF INFERENCES.

Section 22.

The study of the human soul as psychology, has for its subject the whole stream of conscious life and for its aim the discovery of the occurrence and relation of the laws of human thought. Now whether these relations imply the coherence of the objects thought about or not, so long as logic is dealing with the laws according to which thoughts must be correlated in order to attain to objectively valid knowledge, all questions that deal with the formal aspect of thinking do not enter the field of psychological investigation. The general psychological problem is to describe the actual psychic events as they occur, to analyze them into their simplest elements, and inasmuch as it is this purely pragmatic application of psychology to the problem of inference that concerns us, we need to deal only with that law which defines the combination of images and with the question,−−how the spirit achieves this combination. The material aspect of this question is therefore psychological. The legal importance of the problem lies in the very potent fact that inferences and theories are often constructed which are formally or logically absolutely free of error, yet psychologically full of errors that no logic whatever could correct. We have, therefore, to consider at least the most important conditions which determine the manner of our inferences.

The right which lawyers possess of studying these questions, so far as they lie in our field, is of modern establishment. According to Hillebrand[1] the theory of knowledge has to−day broken up into individual theories, involving the certain needs of special fields of knowledge. The place of the epistomologists, who are professionals and beyond the pale of individual disciplines, is now taken by the representatives of those disciplines and each works expressly on his own epistomological problem. Our especial problem is the drawing of inferences from the material presented to us or brought together by our efforts, just as in other disciplines. If we set ourselves the

[1] F. Hillebrand: zur Lehre der Hypothesenbildung.

<p 106> task of determining the procedure when subjecting the fundamental principles of our work to revision and examining their utility, we merely ask whether the process is voluntary or according to fixed laws; and having cleared up that point we ask what influence psychological conditions exercise on the situation. It is, indeed, said that thinking is a congenital endowment, not to be learned from rules. But the problem is not teaching the inferrer to think; the problem is the examination of how inferences have been made by another and what value his inferences may have for our own conclusions. And our own time, which has been bold enough to lay this final conclusion in even the most important criminal cases, in the hands of laymen, this time is doubly bound at least to prepare all possible control for this work, to measure what is finally taken as evidence with the finest instruments possible, and to present to the jury only what has been

proved and repeatedly examined.

It might almost seem as if the task the jury trial sets the judge has not been clearly perceived. A judge who thinks he has performed it when he has cast before the jury the largest possible mass of testimony, more or less reviewed, and who sees how people, who perhaps for the first time in their lives, are involved in a court of law, who perhaps see a criminal for the first time, and are under these circumstances the arbiters of a man's fate,−−a judge who sees all this and is satisfied, is not effective in his work. Nowadays more than ever, it is for the judge to test all evidence psychologically, to review what is only apparently clear, to fill out lacunae, and to surmount difficulties, before he permits the material brought together in a very few hours to pass into the jury's hands. According to Hillebrand, much that seems ``self−evident" shows itself dependent on definite experience attained in the process of hundreds of repetitions in the daily life; the very impression of self−evidence is frequently produced by a mere chance instinct about what should be held for true. Hume has already shown how the most complex and abstract concepts are derived from sensation. Their relation must be studied, and only when we can account for every psychic process with which we have to concern ourselves, is our duty properly fulfilled.

Section 23. (a) Proof.

Mittermaier[1] holds that ``as a means of testimony in the legal sense of that term every possible source must be examined which

[1] C. J. A. Mittermaier: Die Lehre vom Beweis im deutschen Strafprozess. Darmstadt 1834.

<p 107> may suffice the judge according to law. And from such examination only may the requisite certainties be attained from which the judge is to assume as determined, facts relevant to his judgment." Only the phrase ``according to law" needs explanation, inasmuch as the ``source" of reasons and certainties must satisfy the legal demands not only formally but must sustain materially every possible test, whether circumstantial or logico−psychologic. If, for example, the fundamental sources should be a combination of (1) a judicial examination of premises (lokalaugenschein), (2) testimony of witnesses, and (3) a partial confession, the requirements of the law would be satisfied if the protocol, (1), were written or made according to prescribed forms, if a sufficient number of properly summoned witnesses unanimously confirmed the point in question, and if finally the confession were made and protocoled according to law. Yet, though the law be satisfied, not only may the conclusion be wholly false but every particular part of the evidence may be perfectly useless, without the presence anywhere of intentional untruth. The personal examination may have been made by a judge who half the time, for some sufficiently cogent reason, had a different conception of the case than the one which later appeared to be true. It need not have been necessary that there should be mixed therewith false information of witnesses, incorrect observation, or such other mistakes. There need only have been a presupposition, accepted at the beginning of the examination, when the examination of the premises took place, as to the visible condition of things; and this might have given apparent justification to doubtful material and have rendered it intelligible, only to be shown later as false. The so−called ``local examination" however, is generally supposed to be ``objective." It is supposed to deal only with circumstantial events, and it does not occur to anybody to modify and alter it when it is certainly known that at another point the situation has taken an altogether different form. The objectivity of the local examination is simply non−existent, and if it were really objective, i. e., contained merely dry description with so and so many notations of distances and other figures, it would be of no use. Every local examination, to be of use, must give an accurate picture of the mental process of him who made it. On the one hand it must bring vividly to the mind of the reader, even of the sentencing judge, what the situation was; on the other, it must demonstrate what the examiner thought and represented to himself in order that the reader, who may have different opinions, <p 108> may have a chance to make corrections. If I, for example, get the impression that a fire was made through carelessness, and that somebody lost his life on account of it, and if I made my local examination with this presupposition in mind, the description will certainly seem different from that made under the knowledge that the fire was intentional and made to kill. At trial the description of local conditions will be read and entered as important testimony. It

satisfies the law if it is taken according to form, has the correct content, and is read as prescribed. But for our conscience and in truth this manuscript can be correct only when it is logically and psychologically presented revised according to the viewpoint its writer would have had if he had been in possession of all the facts in possession of the reader. This work of reconstruction belongs to the most difficult of our psychological tasks−−but it must be performed unless we want to go on superficially and without conscience.

The judgment and interpretation of the testimony of witnesses, (2), demand similar treatment. I am legally right if I base my judgment on the testimony of witnesses (provided there are enough of them and they are properly subpoenaed) if nothing suggestive is offered against their testimony, if they do not contradict each other, and especially if there are no contradictions in the testimony of any single individual. This inner contradiction is rather frequent, and the inattention with which the protocols, as a rule, are read, and the scanty degree in which the testimony is tested logically and psychologically, are shown clearly by the fact that the inner contradictions are not observed and worked over more frequently. As evidence of this, let us consider a few cases that are generally told as extravagant jokes. Suppose that a man dreamed that his head was cut off and that that dream so affected him that he died of apoplexy−− yet not everybody asks how the dream was discovered. In a like manner people hear with disgust that somebody who has lost his arm, in despair cut off his other arm with an axe in order more easily to get assistance, and yet they do not ask ``how." Or again when somebody is asked if he knows the romance ``The Emperor Joseph and The Beautiful Railway−signal−man's Daughter," the anachronism of the title does not occur to him, and nobody thinks of the impossibilities of the vivid description of a man walking back and forth, with his hands behind his back, reading a newspaper.

Much testimony contains similar, if not so thorough−going contradictions. If they are credited in spite of this fact the silly be− <p 109> liever may be blamed, but he is justified in the eyes of the law if the above−mentioned legal conditions were satisfied. Hence, the frightfully frequent result: ``Whether the witness's deposition is true, is a matter for his own conscience; eventually he may be arrested for perjury, but he has made his statements and I judge accordingly." What is intended with such a statement is this: ``I hide behind the law, I am permitted to judge in such a case in such a way, and nobody can blame me." But it is correct to assert that in such cases there is really no evidence, there is only a form of evidence. It can be actually evidential only when the testimony is tested logically and psychologically, and the ability and willingness of the witness to tell the truth is made clear. Of course it is true, as Mittermaier says, that the utterance of witnesses is tested by its consistency with other evidence, but that is neither the only test nor the most valid, for there is always the more important internal test, in the first place; and in the second place, it is not conclusive because the comparison may reveal only inconsistency, but can not establish which of the conflicting statements is correct. Correctness can be determined only through testing the single statements, the willingness and ability of each witness, both in themselves and in relation to all the presented material.

Let us take now the third condition of our suppositious case, i. e. partial confession. It is generally self−evident that the value of the latter is to be judged according to its own nature. The confession must be accepted as a means of proof, not as proof, and this demands that it shall be consistent with the rest of the evidence, for in that way only can it become proof. But it is most essential that the confession shall be internally tested, i. e. examined for logical and psychological consistency. This procedure is especially necessary with regard to certain definite confessions.

(a) Confessions given without motive.

(b) Partial confessions.

(c) Confessions implying the guilt of another.

(a) Logic is, according to Schiel[1] the science of evidence−−not of finding evidence but of rendering evidence evidential. This is particularly true with regard to confessions, if we substitute psychology for logic.

It is generally true that many propositions hold so long only as they are not doubted, and such is the case with many confessions. The crime is confessed; he who confesses to it is always a criminal, and no man doubts it, and so the confession

[1] J. Schiel: Die Methode der Induktiven Forschung. Braunschweig 1865.

<p 110> stands. But as soon as doubt, justified or unjustified, occurs, the question takes quite a different form. The confession has first served as proof, but now psychological examination alone will show whether it can continue to serve as proof.

The most certain foundation for the truth of confession in any case is the establishment of a clear motive for it−−and that is rarely present. Of course the motive is not always absent because we do not immediately recognize it, but it is not enough to suppose that the confession does not occur without a reason. That supposition would be approximately true, but it need not be true. If a confession is to serve evidentially the motive _*must_ be clear and indubitable. Proof of its mere existence is insufficient; we must understand the confession in terms of all the factors that caused it. The process of discovering these factors is purely logical and generally established indirectly by means of an apagogue. This is essentially the proof by negation, but it may serve in connection with a disjunctive judgment which combines possible alternatives as a means of confirmation. We are, then, to bring together all conceivable motives and study the confession with regard to them. If all, or most of them, are shown to be impossible or insufficient, we have left only the judgment of one or more conclusions, and with this we have an essentially psychological problem. Such a problem is seldom simple and easy, and as there is no possibility of contradiction, the danger is nowhere so great of making light of the matter. ``What is reasserted is half proved." That is a comfortable assertion, and leads to considerable incorrectness. A confession is only established in truth when it is construed psychologically, when the whole inner life of the confessor and his external conditions are brought into relation with it, and the remaining motives established as at least possible. And this must be done to avoid the reproach of having condemned some confessor without evidence, for a confession having no motive may be untrue, and therefore not evidential.

(b) *Partial confessions* are difficult, not only because they make it harder to prove the evidence for what is not confessed, but also because what is confessed appears doubtful in the light of what is not. Even in the simplest cases where the reason for confession and silence seems to be clear, mistakes are possible. If, for example, a thief confesses to having stolen only what has been found in his possession but denies the rest, it is fairly probable that he hopes some gain from the evidence in which there appears to be no proof <p 111> of his having stolen what has not been found upon him. But though this is generally the case, it might occur that the thief wants to assume the guilt of another person, and hence naturally can confess only to what he is accused of, inasmuch as he either has insufficient or no evidence whatever of his guilt for the rest of the crime.

Another fairly clear reason for partial confession, is shown in the confession to a certain degree of malicious intent, as the denial of the intent to kill. If this is made by a person who may be supposed to know the legal situation, either because of earlier experience or for other reasons, there is sufficient justification for doubting the honesty of his confession. Most of such cases belong to the numerous class in which the defendant confesses to a series of facts or a number of things, and denies a few of them without any apparent reason; he may confess to a dozen objects used in an assault and simply refuse to discuss two probably quite insignificant ones. If such a case comes up for judgment to the full bench, half the judges say that since he has stolen twelve he must have taken the other two, and the other half say that since he has confessed to twelve he would have confessed to the other two if he had taken them. Generally speaking, both sides are right; one inference is as justified as the other. As a rule, such cases do not repay a great deal of troublesome examination, inasmuch as the question of A's having stolen twelve or fourteen objects can little affect either his guilt or his sentence. But it is to be remembered that it is never indifferent whether a man pleads guilty or not guilty, and later on, especially in another case, it may be quite the reverse of indifferent whether a man is condemned because of a matter indifferent to−day. Suppose that the denied theft was of a worthless but

characteristic thing, e. g. an old prayer−book. If now the thief is again suspected of a robbery which he denies and the theft is again that of an old prayerbook, then it is not indifferent as a matter of proof whether the man was condemned for stealing a prayer−book or not. If he was so condemned, there will already be remarks about, ``a certain passion for old prayer−books," and the man will be suspected of the second theft.

In regard to the possession of stolen goods, such a sentence may have similar significance. I recall a case in which several people were sentenced for the theft of a so−called fokos (a Hungarian cane with a head like an ax). Later a fokos was used in murder in the same region and the first suspicion of the crime was attached to the thief, who might, because of his early crime, have been in possession <p 112> of a fokos. Now suppose that the man had confessed to theft of everything but the fokos, and that he had been condemned on the basis of the confession, the fact would be of far−reaching significance in the present case. Of course it is not intended that the old case is to be tried again before the new. That would be a difficult job after the lapse of some time, and in addition, would be of little use, for everybody recalls the old judgment anyway and supposes that the circumstances must have been such as to show the man guilty. If a man is once sentenced for something he has not confessed to, the stigma remains no matter how the facts may be against it.

Experience has shown that the victims of theft count everything stolen that they do not discover at the first glance. And it might have been lost long before the theft, or have been stolen at an earlier or a later time. For this reason it often happens that servants, and even the children of the house or other frequenters, take the robbery as an opportunity for explaining the disappearance of things they are responsible for or steal afresh and blame it upon ``the thief." The quantity stolen is generally exaggerated, moreover, in order to excite universal sympathy and perhaps to invoke help. In general, we must hold that there is no psychological reason that a confessor should deny anything the confession of which can bring him no additional harm. The last point must be carefully treated, for it requires taking the attitude of the accused and not of the examiner. It is the former's information and view−point that must be studied, and it often contains the most perverted view−points; e. g., one man denies out of mere obstinacy because he believes that his guilt is increased by this or that fact. The proposition: who has stolen one thing, has also stolen the rest, has slight justification.

(c) If a denying fellow−criminal is accused by a confession, the interpretation of the latter becomes difficult. First of all, the pure kernel of the confession must be brought to light, and everything set aside that might serve to free the confessor and involve the other in guilt. This portion of the work is comparatively the easiest, inasmuch as it depends upon the circumstances of the crime. It is more difficult to determine what degree of crime the confessor attached to himself by accusing also the other man, because clearness can be reached in such a case only by working out the situation from beginning to end in two directions; first, by studying it without reference to the fellow−criminal, second, with such reference. The complete elimination of the additional circumstance is exceedingly troublesome because it requires the complete control of the material <p 113> and because it is always psychologically difficult so to exclude an event already known in its development and inference as to be able to formulate a theory quite without reference to it.

If this is really accomplished and some positive fact is established in the self−accusation, the question becomes one of finding the value seen by the confessor in blaming himself together with his fellow. Revenge, hatred, jealousy, envy, anger, suspicion, and other passions will be the forces in which this value will be found. One man brings his ancient comrade into jeopardy in revenge for the latter's injustice in the division of the booty, or in deliberate anger at the commission of some dangerous stupidity in a burglary. Again, it often happens that he or she, through jealousy, accuses her or him in order that the other may be also imprisoned, and so not become disloyal. Business jealousy, again, is as influential as the attempt to prevent another from disposing of some hidden booty, or from carrying out by himself some robbery planned in partnership. These motives are not always easy to discover but are conceivable. There are also cases, not at all rare, in which the ordinary man is fully lacking in comprehension of ``the substitute value," which makes him confess the complicity of his fellow. I am going to offer just one example, and inasmuch as the persons concerned are long since dead, will, by way of exception, mention their names and the improbability of their stories. In 1879 an old man, Blasius Kern, was found one morning completely snowed over and with a serious wound in the

head. There was no possible suspicion of robbery as motive of the murder, inasmuch as the man was on his way home drunk, as usual, and it was supposed that he had fallen down and had smashed his skull. In 1881 a young fellow, Peter Seyfried, came to court and announced that he had been hired by Blasius Kern's daughter, Julia Hauck, and her husband August Hauck, to kill the old fellow, who had become unendurable through his love of drink and his endless quarrelsomeness; and accordingly he had done the deed. He had been promised an old pair of trousers and three gulden, but they had given him the trousers, not the money, and as all his attempts to collect payment had failed he divulged the secret of the Hauck people. When I asked him if he were unaware that he himself was subject to the law he said, ``I don't care; the others at least will also be punished;−−why haven't they kept their word." And this lad was very stupid and microcephalic, but according to medico− legal opinion, capable of distinguishing between right and wrong. His statements proved themselves true to the very last point. <p 114>

So significantly weak as this in fundamental reliability, very few confessions will appear to be, but the reasons for confessions, difficult both to find and to judge, are many indeed. The only way to attain certainty is through complete and thorough−going knowledge of all the external conditions, but primarily through sound psychological insight into the nature of both the confessor and those he accuses. Evidently the first is by far the more important: what he is beneath the surface, his capacities, passions, intentions, and purposes, must all be settled if any decision is to be arrived at as to the advantage accruing to a man by the accusation of others. For example, the passionate character of some persons may indicate beyond a doubt that they might find pleasure in suffering provided they could cause suffering to others at that price. Passion is almost always what impels men, and what passion in particular lies behind a confession will be revealed partly by the crime, partly by the relation of the criminals one to the other, partly by the personality of the new victim. If this passion was strong enough to deal, if I may use the term, anti−egoistically, it can be discovered only through the study of its possessor. It may be presupposed that everybody acts according to his own advantage−−the question asks merely what this advantage is in the concrete, and whether he who seeks it, seeks it prudently. Even the satisfaction of revenge may be felt as an advantage if it is more pleasurable than the pain which follows confession−−the matter is one of relative weight and is prudently sought as the substitution of an immediate and petty advantage for a later and greater one.

Another series of procedures is of importance in determining proof, where circumstances are denied which have no essential relation to the crime. They bring the presentation of proof into a bypath so that the essential problem of evidence is left behind. Then if the denied circumstance is established as a fact it is falsely supposed that the guilt is so established. And in this direction many mistakes are frequently made. There are two suggestive examples. Some years ago there lived in Vienna a very pretty bachelor girl, a sales−person in a very respectable shop. One day she was found dead in her room. Inasmuch as the judicial investigation showed acute arsenic poisoning, and as a tumbler half full of sweetened water and a considerable quantity of finely powdered arsenic was found on her table, these two conditions were naturally correlated. From the neighbors it was learned that the dead girl had for some time been intimate with an unknown gentleman who visited her <p 115> frequently, but whose presence was kept as secret as possible by both. This gentleman, it was said, had called on the girl on the evening before her death. The police inferred that the man was a very rich merchant, residing in a rather distant region, who lived peaceably with his much older wife and therefore kept his illicit relations with the girl secret. It was further established at the autopsy that the girl was pregnant, and so the theory was formed that the merchant had poisoned his mistress and in the examination this deed was set down against him. Now, if the man had immediately confessed that he knew the dead girl, and stood in intimate relation with her and that he had called on her the last evening; if he had asserted perhaps that she was in despair about her condition, had quarreled with him and had spoken of suicide, etc., then suicide would unconditionally have had to be the verdict. In any event, he never could have been accused, inasmuch as there was no additional evidence of poisoning. But the man conceived the unfortunate notion of denying that he knew the dead girl or had any relations with her, or that he had ever, even on that last evening, called on her. He did this clearly because he did not want to confess a culpable relation to public opinion, especially to his wife. And the whole question turned upon this denied circumstance. The problem of evidence was no longer, ``Has he killed her," but ``Did he carry on an intimacy with her." Then it was proved beyond reasonable doubt

through a long series of witnesses that his visits to the girl were frequent, that he had been there on the evening before her death, and that there could be no possible doubt as to his identity. That settled his fate and he was sentenced to death. If we consider the case psychologically we have to grant that his denial of having been present might have for motive as much the fact that he had poisoned the girl, as that he did not want to admit the relation at the beginning. Later on, when he completely understood the seriousness of his situation, he thought a change of front too daring and hoped to get on better by sticking to his story. Now, as we have seen, what was proved was the fact that he knew and visited the girl; what he was sentenced for was the murder of the girl.

A similar case, particularly instructive in its development, and especially interesting because of the significant study (of the suggestibility of witnesses) of Dr. Von Schrenck−Notzing and Prof. Grashey, kept the whole of Munich in excitement some years ago. A widow, her grown−up daughter, and an old servant were stifled <p 116> and robbed in their home. The suspicion of the crime fell upon a brick−layer who had once before made a confession concerning another murder and of whom it was known that some time before the deed was done he had been building a closet into the house of the three murdered women. Through various combinations of the facts the supposition was reached that the mason got entry into the house on the pretense of examining whether or not the work he had done on the closet had caused any damage, and had then committed the thieving murder. Now here again, if the mason had said: ``Yes, I was without a job, wanted to get work, entered the house under the assigned pretense, and appeared to see about the closet and had myself paid for the apparently repaired improvement, left the three women unharmed, and they must only after that have been killed,"−−if he had said this, his condemnation would have been impossible, for all the other testimony was of subordinate importance. Now suppose the man was innocent, what could he have thought: ``I have already been examined once in a murder case, I found myself in financial difficulties, I still am in such difficulties−−if I admit that I was at the place of the crime at the time the crime was committed, I will get into serious trouble, which I won't, if I deny my presence." So he really denied having been in the house or in the street for some time, and inasmuch as this was shown by many witnesses to be untrue, his presence at the place where the crime was committed was identified with the unproved fact that he had committed it, and he was condemned.

I do not assert that either one or the other of these persons was condemned guiltlessly, or that such ``side issues" have no value and ought not to be proved. I merely point out that caution is necessary in two directions. First of all, these side issues must not be identified with the central issue. Their demonstration is only preparatory work, the value of which must be established cautiously and without prejudice. It may be said that the feeling of satisfaction with what has been done causes jurists frequently to forget what must yet be done, or to undervalue it. Further, a psychological examination must seek out the motives which led or might have led the accused to deny some point not particularly dangerous to him. In most cases an intelligible ground for such action can be discovered, and if the psychologically prior conditions are conceived with sufficient narrowness to keep us from assuming unconditional guilt, we are at least called upon to be careful. <p 117>

This curious danger of identification of different issues as the aim of presentation of evidence, occurs much more frequently and with comparatively greater degree in the cases of individual witnesses who are convinced of the principal issue when a side issue is proved. Suppose a witness is called on to identify a man as somebody who had stabbed him in a serious assault, and that he has also to explain whether the quarrel he had had with this man a short time ago was of importance. If the suspect is desirous of having the quarrel appear as harmless, and the wounded person asserts that the quarrel was serious, the latter will be convinced, the moment his contention may be viewed as true, that his opponent was really the person who had stabbed him. There is, of course, a certain logical justification for this supposition, but the psychological difficulty with it is the fact that this case, like many others, involves the identification of what is inferred with what is perceived. It is for this reason that the mere fact of arrest is to most people a conviction of guilt. The witness who had first identified A as only the probable criminal becomes absolutely convinced of it when A is presented to him in stripes, even though he knows that A has been arrested on his own testimony alone. The appearance and the surroundings of the prisoner influence many, and not merely uneducated people, against the prisoner, and they

think, involuntarily, ``If he were not the one, they would not have him here."

Section 24. (b) Causation.[1]

If we understand by the term cause the axiom that every change has an occasion, hence that every event is bound up with a number of conditions which when lacking in whole or in part would prevent the appearance of the event, while their presence would compel its appearance, then the whole business of the criminalist is the study of causes. He must indeed study not only whether and how crime and criminal are causally related, but also how their individual elements are bound to each other and to the criminal; and finally, what causation in the criminal, considered with regard to his individual characteristics, inevitably led to the commission of the crime. The fact that we deal with the problem of cause brings us close to other sciences which have the same task in their own re−

[1] Max Mayer: Der Kausalzusammenhang zwischen Handlung und Erfolg in Strafrecht. 1899. von Rohland. Die Kausallehre im Strafreeht. Leipzig 1903 H. Gross's Archiv, XV, 191.

<p 118> searches; and this is one of the reasons for the criminalist's necessary concern with other disciplines. Of course no earnest criminalist can pursue other studies for their own sane, he has no time; but he must look about him and study the methods used in other sciences. In the other sciences we learn method, but not as method, and that is all that we need. And we observe that the whole problem of method is grounded on causation. Whether empirically or aprioristically does not matter. We are concerned solely with causation.

In certain directions our task is next to the historians' who aim to bring men and events into definite causal sequence. The causal law is indubitably the ideal and only instructive instrument in the task of writing convincing history, and it is likewise without question that the same method is specifically required in the presentation of evidence. Thus: ``This is the causal chain of which the last link is the crime committed by A. Now I present the fact of the crime and include only those events which may be exclusively bound up with A's criminality−−and the crime appears as committed. Now again, I present the fact of the crime and exclude all those events which can without exception be included only if A is not a criminal−− and there is no crime."[1]

Evidently the finding of causes involves, according to the complexities of the case, a varying number of subordinate tasks which have to be accomplished for each particular incident, inasmuch as each suspicion, each statement *pro* or *con* has to be tested. The job is a big one but it is the only way to absolute and certain success, provided there is no mistake in the work of correlating events. As Schell says: ``Of all the observed identities of effect in natural phenomena only one has the complete strength of mathematical law−−the general law of causation. The fact that everything that has a beginning has a cause is as old as human experience." The application of this proposition to our own problem shows that we are not to turn the issue in any unnecessary direction, once we are convinced that every phenomenon has its occasion. We are, on the contrary, to demonstrate this occasion and to bring it into connection with every problem set by the testimony at any moment. In most cases the task, though not rigidly divided, is double and its quality depends upon the question whether the criminal was known from the beginning or not. The duality is foremost, and lasts

[1] Cf. S. Strieker: Studien <u:>ber die Assoziation der Vorstellungen. Vienna 1883.

<p 119> longest if only the deed itself is known, and if the judge must limit himself entirely to its sole study in order to derive from it its objective situation.

The greatest mistakes in a trial occur when this derivation of the objective situation of the crime is made unintelligently, hastily or carelessly, and conversely the greatest successes are due to its correct rendering. But such a correct rendering is no more than the thoroughgoing use of the principle of causality. Suppose a great crime has been committed and the personality of the criminal is not revealed by the character of the crime.

The mistake regularly made in such a case is the immediate and superficial search for the personality of the criminal instead of what should properly proceed−−the study of the causal conditions of the crime. For the causal law does not say that everything which occurs, taken as a whole and in its elements, has one ground−−that would be simply categorical emptiness. What is really required is an efficient and satisfying cause. And this is required not merely for the deed as a whole but for every single detail. When causes are found for all of these they must be brought together and correlated with the crime as described, and then integrated with the whole series of events.

The second part of the work turns upon the suspicion of a definite person when his own activity is interpolated as a cause of the crime. Under some conditions again, the effect of the crime on the criminal has to be examined, i. e., enrichment, deformation, emotional state, etc. But the evidence of guilt is established only when the crime is accurately and explicitly described as the inevitable result of the activity of the criminal and his activity only. This systematic work of observing and correlating every instant of the supposed activities of the accused (once the situation of the crime is defined as certainly as possible), is as instructive as it is promising of success. It is the one activity which brings us into touch with bare perception and its reproduction. ``All inference with regard to facts appears to depend upon the relation of cause to effect; by virtue of this relation alone may we rely upon the evidence of our memories and our senses."[1] Hume illustrates this remark with the following example: If a clock or some other machine is found on a desert island, the conclusion is drawn that men are or were on the island. The application is easy enough. The presence of a clock, the presence of a three−cornered wound is perceived by the senses−−that men were there, that the wound was made with a specific kind of in−

[1] Meinong: Humestudien. Vienna 1882.

<p 120> strument, is a causal inference. Simple as this proposition of Hume's is, it is of utmost importance in the law because of the permanent and continually renewed problems: What is the effect in _*this_ case? What is the cause? Do they belong together? Remembering that these questions make our greatest tasks and putting them, even beyond the limit of disgust, will save us from grave errors.

There is another important condition to which Hume calls attention and which is interpreted by his clever disciple Meinong. It is a fact that without the help of previous experience no causal nexus can be referred to an observation, nor can the presence of such be discovered in individual instances. It may be postulated only. A cause is essentially a complex in which every element is of identical value. And this circumstance is more complicated than it appears to be, inasmuch as it requires reflection to distinguish whether only one or more observations have been made. Strict self−control alone and accurate enumeration and supervision will lead to a correct decision as to whether one or ten observations have been made, or whether the notion of additional observations is not altogether illusory.

This task involves a number of important circumstances. First of all must be considered the manner in which the man on the street conceives the causal relation between different objects. The notion of causality, as Schwarz[1] shows, is essentially foreign to the man on the street. He is led mainly by the analogy of natural causality with that of human activity and passivity, e. g., the fire is active with regard to water, which simply must sizzle passively. This observation is indubitably correct and significant, but I think Schwarz wrong to have limited his description to ordinary people; it is true also of very complex natures. It is conceivable that external phenomena shall be judged in analogy with the self, and inasmuch as the latter often appears to be purely active, it is also supposed that those natural phenomena which appear to be especially active are really so.

In addition, many objects in the external world with which we have a good deal to do, and are hence important, do as a matter of fact really appear to be active−−the sun, light, warmth, cold, the weather, etc., so that we assign activity and passivity only according to the values the objects have for us. The ensuing mistake is the fact that we overlook the alternations between activity and pas−

[1] Das Wahrnehmungsproblem von Standpunkte des Physikers, Physiologen und Philosophen. Leipzig 1892.

<p 121> sivity, or simply do not make the study such alternations require; yet the correct apportionment of action and reaction is, for us, of greatest importance. In this regard, moreover, there is always the empty problem as to whether two things may stand in causal relation,−− empty, because the answer is always yes. The scientific and practical problem is as to whether there exists an actual causal nexus. The same relation occurs in the problem of reciprocal influences. No one will say, for example, that any event exercises a reciprocal influence on the sun, but apart from such relatively few cases it would not only be supposed that A is the cause of the effect B, but also that B might have reciprocally influenced A. Regard for this possibility may save one from many mistakes.

One important source of error with regard to cause and effect lies in the general and profound supposition that the cause must have a certain similarity to the effect. So Ovid, according to J. S. Mill, has Medea brew a broth of long−lived animals; and popular superstitions are full of such doctrine. The lung of a long−winded fox is used as a cure for asthma, the yarrow is used to cure jaundice, agaricos is used for blisters, aristolochia (the fruit of which has the form of a uterus) is used for the pains of child−birth, and nettle−tea for nettle−rash. This series may be voluntarily increased when related to the holy patron saints of the Catholic Church, who are chosen as protectors against some especial condition or some specific difficulty because they at one time had some connection with that particular matter. So the holy Odilia is the patron saint for diseases of the eye, not because she knew how to cure the eyes, but because her eyes were put out with needles. The thief Dismas is the patron of the dying because we know nothing about him save that he died with Christ. St. Barbara, who is pictured together with a tower in which she was imprisoned, and which was supposed to be a powder house, has become the patron saint of artillery. In the same manner St. Nicholas is, according to Simrock, the patron of sailors because his name resembles Nichus, Nicor, Nicker, which is the name of the unforgotten old German sea−deity.

Against such combinations, external and unjustified, not even the most educated and skilful is safe. Nobody will doubt that he is required to make considerable effort in his causal interpretation because of the sub−conscious influence of such similarities. The matter would not be so dangerous, all in all, because such mistakes may be easily corrected and the attention of people may be called <p 122> to the inadequacy of such causation−−but the reason for this kind of correlations is rarely discovered. Either people do not want to tell it because they instinctively perceive that their causal interpretation cannot be justified, or they cannot even express it because the causal relation had been assumed only subconsciously, and they are hence unaware of the reasons for it and all the more convinced that they are right. So for example, an intelligent man told me that he suspected another of a murder because the latter's mother died a violent death. The witness stuck to his statement: ``the man who had once had something to do with killing must have had something to do with this killing." In a similar manner, a whole village accused a man of arson because he was born on the night on which a neighboring village burned down. Here, however, there was no additional argument in the belief that his mother had absorbed the influence of the fire inasmuch as the latter was told that there had been a fire only after the child was born. ``He once had something to do with fire," was the basis of the judgment, also in this case.

There are innumerable similar examples which, with a large number of habitual superstitious presuppositions, make only false causality. Pearls mean tears because they have similar form; inasmuch as the cuckoo may not without a purpose have only two calls at one time and ten or twenty at another, the calls must mean the number of years before death, before marriage, or of a certain amount of money, or any other countable thing. Such notions are so firmly rooted in the peasantry and in all of us, that they come to the surface, whether consciously or unconsciously, and influence us more than we are accustomed to suppose they do. Whenever anybody assures us that he is able to assert absolutely, though not altogether prove a thing, this assurance may be variously grounded, but not rarely it is no more than one of these false correlations. Schopenhauer has said, that ``motivation is causality seen from within,"−−and one may add conversely that causality is motivation seen from without. What is asserted must be motivated, and that is done by means of causality−−if no real

ultimate cause is found a false, superficial and insufficient one is adopted, inasmuch as we ever strive to relate things causally, in the knowledge that, otherwise, the world would be topsy−turvy. ``Everywhere," says Stricker, ``we learn that men who do not associate their experiences according to right cause are badly adapted to their environment; the pictures of artists are disliked, the laborer's <p 123> work does not succeed; the tradesman loses his money, and the general his battle. And we may add, ``The criminalist his case." For whoever seeks the reason for a lost case certainly will find it in the ignorance of the real fact and in the incorrect co<o:>rdination of cause and effect. The most difficult thing in such co<o:>rdination is not that it has to be tested according to the notion one has for himself of the chain of events; the difficulty lies in the fact that the point of view and mental habits of the man who is suspected of the effects must be adopted. Without this the causal relations as they are arrived at by the other can never be reached, or different results most likely ensue.

The frequency of mistakes like those just mentioned is well known. They affect history. Even La Rochefoucauld was of the opinion that the great and splendid deeds which are presented by statesmen as the outcome of far−reaching plans are, as a rule, merely the result of inclination and passion. This opinion concerns the lawyer's task also, for the lawyer is almost always trying to discover the moving, great, and unified plan of each crime, and in order to sustain such a notion, prefers to perfect a large and difficult theoretic construction, rather than to suppose that there never was a plan, but that the whole crime sprang from accident, inclination, and sudden impulse. The easiest victims in this respect are the most logical and systematic lawyers; they merely presuppose, ``I would not have done this" and forget that the criminal was not at all so logical and systematic, that he did not even work according to plan, but simply followed straying impulses.

Moreover, a man may have determined his causal connections correctly, yet have omitted many things, or finally have made a voluntary stop at some point in his work, or may have carried the causal chain unnecessarily far. This possibility has been made especially clear by J. S. Mill, who showed that the immediately preceding condition is never taken as cause. When we throw a stone into the water we call the cause of its sinking its gravity, and not the fact that it has been thrown into the water. So again, when a man falls down stairs and breaks his foot, in the story of the fall the law of gravity is not mentioned; it is taken for granted. When the matter is not so clear as in the preceding examples, such facts are often the cause of important misunderstandings. In the first case, where the immediately preceding condition is _*not_ mentioned, it is the inaccuracy of the expression that is at fault, for we see that at least in scientific form, the efficient cause is always the immedi− <p 124> ately preceding condition. So the physician says, ``The cause of death was congestion of the brain in consequence of pressure resulting from extravasation of the blood." And he indicates only in the second line that the latter event resulted from a blow on the head. In a similar manner the physicist says that the board was sprung as a consequence of the uneven tension of the fibers; he adds only later that this resulted from the warmth, which again is the consequence of the direct sunlight that fell on the board. Now the layman had in both cases omitted the proximate causes and would have said in case 1, ``The man died because he was beaten on the head," and in case 2 ``The board was sprung because it lay in the sun." We have, therefore, to agree to the surprising fact that the layman skips more intermediaries than the professional, but only because either he is ignorant of or ignores the intervening conditions. Hence, he is also in greater danger of making a mistake through omission.

Inasmuch as the question deals only with the scarcity of correct knowledge of proximate causes, we shall set aside the fact that lawyers themselves make such mistakes, which may be avoided only by careful self−training and cautious attention to one's own thoughts. But we have at the same time to recognize how important the matter is when we receive long series of inferences from witnesses who give expression only to the first and the last deduction. If we do not then examine and investigate the intermediary links and their justification, we deserve to hear extravagant things, and what is worse, to make them, as we do, the foundation of further inference. And once this is done no man can discover where the mistake lies.

If again an inference is omitted as self−evident (cf. the case of gravity, in falling down stairs) the source of

error and the difficulty lies in the fact that, on the one hand, not everything is as self−evident as it seems; on the other, that two people rarely understand the same thing by ``self−evident," so that what is self−evident to one is far from so to the other. This difference becomes especially clear when a lawyer examines professional people who can imagine offhand what is in no sense self−evident to persons in other walks of life. I might cite out of my own experience, that the physicist Boltzmann, one of the foremost of living mathematicians, was told once upon a time that his demonstrations were not sufficiently detailed to be intelligible to his class of non−professionals, so that his hearers could not follow him. As a result, he carefully counted the simplest additions or interpolations on the blackboard, but at <p 125> the same time integrated them, etc., in his head, a thing which very few people on earth can do. It was simply an off−hand matter for this genius to do that which ungenial mortals can not.

This appears in a small way in every second criminal case. We have only to substitute the professionals who appear as witnesses. Suppose, e. g., that a hunter is giving testimony. He will omit to state a group of correlations; with regard to things which are involved in his trade, he will reach his conclusion with a single jump. Then we reach the fatal circle that the witness supposes that we can follow him and his deductions, and are able to call his attention to any significant error, while we, on the other hand, depend on his professional knowledge, and agree to his leaping inferences and allow his conclusions to pass as valid without knowing or being able to test them.

The notion of ``specialist" or ``professional" must be applied in such instances not only to especial proficients in some particular trade, but also to such people as have by accident merely, any form of specialized knowledge, e. g., knowledge of the place in which some case had occurred. People with such knowledge present many a thing as self−evident that can not be so to people who do not possess the knowledge. Hence, peasants who are asked about some road in their own well known country reply that it is ``straight ahead and impossible to miss" even when the road may turn ten times, right and left.

Human estimates are reliable only when tested and reviewed at each instant; complicated deductions are so only when deduction after deduction has been tested, each in itself, Lawyers must, therefore, inevitably follow the rule of requiring explication of each step in an inference−−such a requirement will at least narrow the limits of error.

The task would be much easier if we were fortunate enough to be able to help ourselves with experiments. As Bernard[1] says, ``There is an absolute determinism in the existential conditions of natural phenomena, as much in living as in non−living bodies. If the condition of any phenomenon is recognized and fulfilled the phenomenon must occur whenever the experimenter desires it." But such determination can be made by lawyers in rare cases only, and to−day the criminalist who can test experimentally the generally asserted circumstance attested by witnesses, accused, or experts,

[1] C. Bernard: Introduction <a!> l'Etude de la Med<e'>cine Experimentale. Paris 1871.

<p 126> is a rarissima avis. In most cases we have to depend on our experience, which frequently leaves us in difficulties if we fail thoroughly to test it. Even the general law of causation, that every effect has its cause, is formulated, as Hume points out, only as a matter of habit. Hume's important discovery that we do not observe causality in the external world, demonstrates only the difficulty of the interpretation of causality. The weakness of his doctrine lies in his assertion that the knowledge of causality may be obtained through habit because we perceive the connection of similars, and the understanding, through habit, deduces the appearance of the one from that of the other. These assertions of the great thinker are certainly correct, but he did not know how to ground them. Hume teaches the following doctrine:

The proposition that causes and effects are recognized, not by the understanding but because of experience, will be readily granted if we think of such things as we may recollect we were once altogether unacquainted with. Suppose we give a man who has no knowledge of physics two smooth marble plates. He will never

discover that when laid one upon the other they are hard to separate. Here it is easily observed that such properties can be discovered only through experience. Nobody, again, has the desire to deceive himself into believing that the force of burning powder or the attraction of a magnet could have been discovered a priori. But this truth does not seem to have the same validity with regard to such processes as we observed almost since breath began. With regard to them, it is supposed that the understanding, by its own activity, without the help of experience can discover causal connections. It is supposed that anybody who is suddenly sent into the world will be able at once to deduce that a billiard ball will pass its motion on to another by a push.

But that this is impossible to derive a priori is shown through the fact that elasticity is not an externally recognizable quality, so that we may indeed say that perhaps no effect can be recognized unless it is experienced at least once. It can not be deduced a priori that contact with water makes one wet, or that an object responds to gravity when held in the hand, or that it is painful to keep a finger in the fire. These facts have first to be experienced either by ourselves or some other person. Every cause, Hume argues therefore, is different from its effect and hence can not be found in the latter, and every discovery or representation of it a priori must remain voluntary. All that the understanding can do is to simplify <p 127> the fundamental causes of natural phenomena and to deduce the individual effects from a few general sources, and that, indeed, only with the aid of analogy, experience, and observation.

But then, what is meant by trusting the inference of another person, and what in the other person's narrative is free from inference? Such trust means, to be convinced that the other has made the correct analogy, has made the right use of experience, and has observed events without prejudice. That is a great deal to presuppose, and whoever takes the trouble of examining however simple and short a statement of a witness with regard to analogy, experience, and observation, must finally perceive with fear how blindly the witness has been trusted. Whoever believes in knowledge a priori will have an easy job: ``The man has perceived it with his mind and reproduced it therewith; no objection may be raised to the soundness of his understanding; ergo, everything may be relied upon just as he has testified to it." But he who believes in the more uncomfortable, but at least more conscientious, skeptical doctrine, has, at the minimum, some fair reason for believing himself able to trust the intelligence of a witness. Yet he neither is spared the task of testing the correctness of the witness's analogy, experience and observation.

Apriorism and skepticism define the great difference in the attitude toward the witness. Both skeptic and apriorist have to test the desire of the witness to lie, but only the skeptic needs to test the witness's ability to tell the truth and his possession of sufficient understanding to reproduce correctly; to examine closely his innumerable inferences from analogy, experience and observation. That only the skeptic can be right everybody knows who has at all noticed how various people differ in regard to analogies, how very different the experiences of a single man are, both in their observation and interpretation. To distinguish these differences clearly is the main task of our investigation.

There are two conditions to consider. One is the strict difference between what is causally related and its accidental concomitants,−− a difference with regard to which experience is so often misleading, for two phenomena may occur together at the same time without being causally connected. When a man is ninety years old and has observed, every week in his life, that in his part of the country there is invariably a rainfall every Tuesday, this observation is richly and often tested, yet nobody will get the notion of causally connecting Tuesday and rain−−but only because such connection would <p 128> be regarded as generally foolish. If the thing, however, may be attributed to coincidence with a little more difficulty, then it becomes easier to suppose a causal connection; e. g., as when it rains on All− souls day, or at the new moon. If the accidental nature of the connection is still less obvious, the observation becomes a much− trusted and energetically defended meteorological law. This happens in all possible fields, and not only our witnesses but we ourselves often find it very difficult to distinguish between causation and accident. The only useful rule to follow is to presuppose accident wherever it is not indubitably and from the first excluded, and carefully to examine the problem for whatever causal connection it may possibly reveal. ``Whatever is united in any perception must be united according to a general rule, but a great deal more may be present without having

any causal relation."

The second important condition was mentioned by Schopenhauer:[1] ``As soon as we have assigned causal force to any great influence and thereby recognized that it is efficacious, then its intensification in the face of any resistance according to the intensity of the resistance will produce finally the appropriate effect. Whoever cannot be bribed by ten dollars, but vacillates, will be bribed by twenty−five or fifty."

This simple example may be generalized into a golden rule for lawyers and requires them to test the effect of any force on the accused at an earlier time in the latter's life or in other cases,−− i. e., the early life of the latter can never be studied with sufficient care. This study is of especial importance when the question is one of determining the culpability of the accused with regard to a certain crime. We have then to ask whether he had the motive in question, or whether the crime could have been of interest to him. In this investigation the problem of the necessary intensity of the influence in question need not, for the time, be considered; only its presence needs to be determined. That it may have disappeared without any demonstrable special reason is not supposable, for inclinations, qualities, and passions are rarely lost; they need not become obvious so long as opportunity and stimulus are absent, and they may be in some degree suppressed, but they manifest themselves as soon as−−Schopenhauer's twenty−five or fifty dollars appear. The problem is most difficult when it requires the conversion of certain related properties, e. g., when the problem is one of suspecting a person of murderous inclination, and all that

[1] Schopenhauer: Die beiden Grundprobleme der Ethik.

<p 129> can be shown in his past life is the maltreatment of animals. Or again, when cruelty has to be shown and all that is established is great sensuality. Or when there is no doubt about cruelty and the problem is one of supposing intense avarice. These questions of conversion are not especially difficult, but when it must be explained to what such qualities as very exquisite egoism, declared envy, abnormal desire for honor, exaggerated conceit, and great idleness may lead to, the problem requires great caution and intensive study.

Section 25. (c) Skepticism.

Hume's skepticism is directly connected with the subject of the preceding chapter, but wants still a few words for itself. Though it is not the lawyer's problem to take an attitude with regard to philosophical skepticism, his work becomes essentially easier through the study of Hume's doctrines.

According to these, all we know and infer, in so far as it is unmathematical, results from experience, and our conviction of it and our reasoning about it, means by which we pass the bounds of sense−perception, depend on sensation, memory and inference from causation. Our knowledge of the relation of cause and effect results also from experience, and the doctrine, applied to the work of the criminalist, may be formulated as follows: ``Whatever we take as true is not an intellectual deduction, but an empirical proposition." In other words, our presuppositions and inferential knowledge depend only upon those innumerable repetitions of events from which we postulate that the event recurred in the place in question. This sets us the problem of determining whether the similar cases with which we compare the present one really are similar and if they are known in sufficiently large numbers to exclude everything else.

Consider a simple example. Suppose somebody who had traveled all through Europe, but had never seen or heard of a negro, thought about the pigmentation of human beings: neither all his thinking nor the assistance of all possible scientific means can lead him to the conclusion that there are also black people−−that fact he can only discover, not think out. If he depends only on experience, he must conclude from the millions of examples he has observed that all human beings are white. His mistake consists in the fact that the immense number of people he has seen belong to the inhabitants of a single zone, and that he has _*failed to observe_ the inhabitants of other regions. <p 130>

In our own cases we need no examples, for I know of no inference which was not made in the following fashion: ``The situation was so in a hundred cases, it must be so in this case." We rarely ask whether we know enough examples, whether they were the correct ones, and whether they were exhaustive. It will be no mistake to assert that we lawyers do this more or less consciously on the supposition that we have an immense collection of suggestive a priori inferences which the human understanding has brought together for thousands of years, and hence believe them to be indubitably certain. If we recognize that all these presuppositions are compounds of experience, and that every experience may finally show itself to be deceptive and false; if we recognize how the actual progress of human knowledge consists in the addition of one hundred new experiences to a thousand old ones, and if we recognize that many of the new ones contradict the old ones: if we recognize the consequence that there is no reason for the mathematical deduction from the first to the hundred−and−first case, we shall make fewer mistakes and do less harm. In this regard, Hume[1] is very illuminative.

According to Masaryk,[2] the fundamental doctrine of Humian skepticism is as follows: ``If I have had one and the same experience ever so often, i. e., if I have seen the sun go up 100 times, I expect to see it go up the 101st time the next day, but I have no guarantee, no certainty, no evidence for this belief. Experience looks only to the past, not to the future. How can I then discover the 101st sunrise in the first 100 sunrises? Experience reveals in me the habit to expect similar effects from similar circumstances, but the intellect has no share in this expectation."

All the sciences based on experience are uncertain and without logical foundation, even though their results, as a whole and in the mass, are predictable. Only mathematics offers certainty and evidence. Therefore, according to Hume, sciences based on experience are unsafe because the recognition of causal connection depends on the facts of experience and we can attain to certain knowledge of the facts of experience only on the ground of the evident relation of cause and effect.

This view was first opposed by Reid, who tried to demonstrate that we have a clear notion of necessary connection. He grants that this notion is not directly attained either from external or internal experience, but asserts its clearness and certainty in spite

[1] Cf. Hume's Treatise of Human Nature.

[2] Masaryk: David Hume's Skepsis. Vienna 1884.

<p 131> of that fact. Our mind has the power to make its own concepts and one such concept is that of necessary connection. Kant goes further and says that Hume failed to recognize the full consequences of his own analysis, for the notion of causality is not the only one which the understanding uses to represent a priori the connection of objects. And hence, Kant defines psychologically and logically a whole system of similar concepts. His ``Critique of Pure Reason" is intended historically and logically as the refutation of Hume's skepticism. It aims to show that not only metaphysics and natural science have for their basis ``synthetic judgments a priori," but that mathematics also rests on the same foundation.

Be that as it may, our task is to discover the application of Hume's skepticism to our own problems in some clear example. Let us suppose that there are a dozen instances of people who grew to be from 120 to 140 years old. These instances occur among countless millions of cases in which such an age was not reached. If this small proportion is recognized, it justifies the postulate that nobody on earth may attain to 150 years. But now it is known that the Englishman Thomas Parr got to be 152 years old, and his countryman Jenkins was shown, according to the indubitable proofs of the Royal Society, to be 157 years old at least (according to his portrait in a copper etching he was 169 years old). Yet as this is the most that has been scientifically proved I am justified in saying that nobody can grow to be 200 years old. Nevertheless because there are people who have attained the age of 180 to 190 years, nobody would care to assert that it is absolutely impossible to grow so old. The names and histories of these people are recorded and their existence removes the great reason against

this possibility.

We have to deal, then, only with greater or lesser possibilities and agree with the Humian idea that under similar conditions frequency of occurrence implies repetition in the next instance. Contrary evidence may be derived from several so−called phenomena of alternation. E. g., it is a well known fact that a number in the so−called Little Lottery, which has not been drawn for a long time, is sure finally to be drawn. If among 90 numbers the number 27 has not turned up for a long time its appearance becomes more probable with every successive drawing. All the so−called mathematical combinations of players depend on this experience, which, generalized, might be held to read: the oftener any event occurs (as the failure of the number 27 to be drawn) the less is the proba− <p 132> bility of its recurrence (i. e., it becomes more probable that 27 will be drawn)−−and this seems the contrary of Hume's proposition.

It may at first be said that the example ought to be put in a different form, i. e., as follows: If I know that a bag contains marbles, the color of which I do not know, and if I draw them one by one and always find the marble I have drawn to be white, the probability that the bag contains only white ones grows with every new drawing that brings a white marble to light. If the bag contains 100 marbles and 99 have been drawn out, nobody would suppose that the last one would be red−−for the repetition of any event increases the probability of its occurrence.

This formulation proves nothing, inasmuch as a different example does not contradict the one it is intended to substitute. The explanation is rather as follows: In the first case there is involved the norm of equal possibilities, and if we apply the Humian principle of increase of probability through repetition, we find it effective in explaining the example. We have known until now always that the numbers in the Little Lottery are drawn equally, and with approximate regularity,−−i. e., none of the single numbers is drawn for a disproportionately long time. And as this fact is invariable, we may suppose that every individual number would appear with comparative regularity. But this explanation is in accord with Hume's doctrine.

The doctrine clarifies even astonishing statistical miracles. We know, e. g., that every year there come together in a certain region a large number of suicides, fractures of arms and legs, assaults, unaddressed letters, etc. When, now, we discover that the number of suicides in a certain semester is significantly less than the number in the same semester of another year, we will postulate that in the next half−year a comparatively larger number of suicides will take place so that the number for the whole year will become approximately equal. Suppose we say: ``There were in the months of January, February, March, April, May and June an average of x cases. Because we have observed the average to happen six times, we conclude that it will not happen in the other months but that instead, x+y cases will occur in those months, since otherwise the average annual count will not be attained." This would be a mistaken abstraction of the principle of equal distribution from the general Humian law, for the Humian law applied to this case indicates: ``For a long series of years we have observed that in <p 133> this region there occur annually so and so many suicides; we conclude therefore that in this year also there will occur a similar number of suicides."

The principle of equal distribution presents itself therefore as a subordinate rule which must not be separated from the principal law. It is, indeed, valid for the simplest events. When I resolve to walk in x street, which I know well, and when I recall whether to−day is Sunday or a week day, what time it is and what the weather is like, I know quite accurately how the street will look with regard to the people that may be met there, although a large number of these people have chosen the time accidentally and might as well have passed through another street. If, for once, there were more people in the street, I should immediately ask myself what unusual event had taken place.

One of my cousins who had a good deal of free time to dispose of, spent it for several months, with the assistance of his comrade, in counting the number of horses that passed daily, in the course of two hours, by a caf<e'> they frequented. The conscientious and controlled count indicated that every day there came one bay horse to every four. If then, on any given day, an incommensurably large number of brown, black, and tawny

horses came in the course of the first hour, the counters were forced to infer that in the next 60 minutes horses of a different color must come and that a greater number of bays must appear in order to restore the disturbed equilibrium. Such an inference is not contradictory to the Humian proposition. At the end of a series of examinations the counters were compelled to say, ``Through so many days we have counted one bay to every four horses; we must therefore suppose that a similar relationship will be maintained the next day."

So, the lawyer, too, must suppose, although we lawyers have nothing to do with figures, that he knows nothing a priori, and must construct his inferences entirely from experience. And hence we must agree that our premises for such inferences are uncertain, and often subject to revision, and often likely, in their application to new facts, to lead to serious mistakes, particularly if the number of experiences from which the next moment is deduced, are too few; or if an unknown, but very important condition is omitted.

These facts must carefully be kept in mind with reference to the testimony of experts. Without showing ourselves suspicious, or desirous of confusing the professional in his own work, we must consider that the progress of knowledge consists in the collection <p 134> of instances, and anything that might have been normal in 100 cases, need not in any sense be so when 1000 cases are in question. Yesterday the norm may have been subject to no exception; to−day exceptions are noted; and to−morrow the exception has become the rule.

Hence, rules which have no exceptions grow progressively rarer, and wherever a single exception is discovered the rule can no longer be held as normative. Thus, before New Holland was discovered, all swans were supposed to be white, all mammals incapable of laying eggs; now we know that there are black swans and that the duck−bill lays eggs. Who would have dared to assert before the discovery of the X−ray that light can penetrate wood, and who, especially, has dared to make generalizations with regard to the great inventions of our time which were not afterwards contradicted by the facts? It may be that the time is not too far away in which great, tenable and unexceptionable principles may be posited, but the present tendency is to beware of generalizations, even so far as to regard it a sign of scientific insight when the composition of generally valid propositions is made with great caution. In this regard the great physicians of our time are excellent examples. They hold: ``whether the phenomenon A is caused by B we do not know, but nobody has ever yet seen a case of A in which the precedence of B could not be demonstrated." Our experts should take the same attitude in most cases. It might be more uncomfortable for us, but certainly will be safer; for if they do not take that attitude we are in duty bound to presuppose in our conclusions that they have taken it. Only in this wise, by protecting ourselves against apparently exceptionless general rules, can our work be safely carried on.

This becomes especially our duty where, believing ourselves to have discovered some generally valid rule, we are compelled to draw conclusions without the assistance of experts. How often have we depended upon our understanding and our ``correct" a priori method of inference, where that was only experience,−−and such poor experience! We lawyers have not yet brought our science so far as to be able to make use of the experience of our comrades with material they have reviewed and defined in writing. We have bothered a great deal about the exposition of some legal difficulty, the definition of some judicial concept, but we have received little instruction or tradition concerning mankind and its passions. Hence, each one has to depend on his own experience, and that is supposed <p 135> to be considerable if it has a score of years to its back, and is somewhat supplemented by the experience, of others. In this regard there are no indubitable rules; everybody must tell himself, ``I have perhaps never experienced this fact, but it may be that a thousand other people have seen it, and seen it in a thousand different ways. How then, and whence, my right to exclude every exception?"

We must never forget that every rule is shattered whenever any single element of the situation is unknown, and that happens very easily and frequently. Suppose that I did not have full knowledge of the nature of water, and walked on terra firma to the edge of some quiet, calm pool. When now I presume: water has a body, it has a definite density, it has consistency, weight, etc., I will also presume that I may go on walking over its surface just as over the surface of the earth,−−and that, simply because I am ignorant of its fluidity and its

specific gravity. Liebman[1] summarizes the situation as follows. The causal nexus, the existential and objective relation between lightning and thunder, the firing of powder and the explosion, are altogether different from the logical nexus, i. e. the mere conceptual connection between antecedent and consequent in deduction. This constitutes the well known kernel of Humian skepticism. We must keep in mind clearly that we never can know with certainty whether we are in possession of all the determining factors of a phenomenon, and hence we must adhere to the only unexceptionable rule: *Be careful about making rules that admit of no exceptions*. There is still another objection to discuss, i. e. the mathematical exception to Humian skepticism. It might be held that inasmuch as the science of justice is closely related in many ways to mathematics, it may permit of propositions a priori. Leibnitz already had said, ``The mathematicians count with numbers, the lawyers with ideas,−−fundamentally both do the same thing." If the relationship were really so close, general skepticism about phenomenal sciences could not be applied to the legal disciplines. But we nowadays deal not with concepts merely, and in spite of all obstruction, Leibnitz's time has passed and the realities of our profession, indeed its most important object, the human being itself, constitute an integrating part of our studies. And the question may be still further raised whether mathematics is really so exempt from skepticism. The work of Gauss, Lobatschewski, Bolyai, Lambert, would make the answer negative.

[1] Liebman Zur Analysis der Wirklichkeit. Strassburg 1888.

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Let us, for once, consider what significance mathematical postulates have. When Pythagoras discovered his proposition in such a way that he first drew a right−angled triangle and then built a square on each of the sides, and finally measured the area of each and compared them, he must at first have got the notion that that also might be merely accidental. If he had made the construction 10 or 100 times with various triangles and these had resulted always identically, only then might he have been justified in saying that he had apparently discovered a theorem. But then his process was just as thoroughly experiential as that of a scientist who says that a bird has never yet been observed to give birth to living young, and that hence all birds lay eggs.

But Pythagoras did not proceed in this experiential manner in the discovery of his theorem. He constructed and he counted, and when he did that he acted on postulates: ``If this is a right−angled triangle and if that be a square, so,"−−and this is just what is done in every science. The general propositions are, ``If the relations remain the same as formerly the moon must rise to−morrow at such and such a time." ``If this step in a deduction is not false, if it is well grounded at this point, if it really refers to x, it follows.... " In his procedures the criminalist does exactly the same thing. What he must be skeptical about is the postulates from which he starts.

Section 26. (d) The Empirical Method in the Study of Cases.

Properly to bound our discussion of Humian skepticism, a few words have to be said concerning the empirical method of the sciences. We will call those laws purely empirical which, in the study of nature, yield regularities that are demonstrated by observation and experiment, but upon which little or no reliance is placed with regard to cases which differ considerably from the observed. The latter is done because no reason is seen for the existence of such laws. The empirical rule is, therefore, no final law, but is capable of explaining, especially when true, e. g., the succession of a certain condition of weather from certain meteorological signs, the improvement of species through crossing, the fact that some alloys are harder than their components, and so on. Or, to choose examples from our own field, jurisprudence may assert as empirical law that a murderer is a criminal who has gone unpunished for his earlier crimes; that all gamblers show such significant resemblances; that the criminal who has soiled his hands with blood in some violent <p 137> crime was accustomed to wipe them on the underside of a table; that the slyest person generally perpetrates some gross stupidity after committing a serious crime, and so renders discovery simpler; that lust and cruelty have a certain relation; that superstition plays a great r<o^>le in crime, etc.

It is of exceeding importance to establish such purely empiric laws in our science, which has done little with such matters because, owing to scanty research into most of them, we need these laws. We know approximately that this and that have come to light so and so often, but we have not reduced to order and studied systematically the cases before us, and we dare not call this knowledge natural law because we have subjected it to no inductive procedure. ``The reference of any fact discovered by experience to general laws or rules we call induction. It embraces both observation and deduction." Again, it may be defined as ``the generalization or universalization of our experiences; and inference that a phenomenon occurring x times will invariably occur when the essential circumstances remain identical. The earliest investigators started with the simplest inductions,−−that fire burns, that water flows downward,−−so that new, simple truths were continually discovered. This is the type of scientific induction and it requires further, the addition of certainty and accuracy."[1]

The foregoing might have been written expressly for us lawyers, but we have to bear in mind that we have not proceeded in our own generalizations beyond ``fire burns, water flows downward." And such propositions we have only derived from other disciplines. Those derived from our own are very few indeed, and to get more we have very far to go. Moreover, the laws of experience are in no way so certain as they are supposed to be, even when mathematically conceived. The empirical law is established that the sum of the three angles of a triangle is equal to two right angles. And yet nobody, ever since the science of surveying has been invented, has succeeded in discovering 180 degrees in any triangle. Now then, when even such things, supposed ever since our youth to be valid, are not at all true, or true theoretically only, how much more careful must we be in making inferences from much less certain rules, even though we have succeeded in using them before in many analogous cases? The activity of a criminalist is of far too short duration to permit him to experience any more than a very small portion of the possibilities of life, and suggestions from foreign sources are very

[1] <O:>ttingen: Die Moralstatistik. Erlangen 1882.

<p 138> rare. The situation is different in other disciplines. ``Our experience," says James Sully,"[1] enables us to express a number of additional convictions. We can predict political changes and scientific developments, and can conceive of the geographical conditions at the north pole." Other disciplines are justified to assert such additional propositions, but is ours? A man may have dealt for years with thieves and swindlers, but is he justified in deducing from the inductions made in his experience, the situation of the first murderer he deals with? Is he right in translating things learned by dealing with educated people to cases where only peasants appear? In all these cases what is needed in making deductions is great caution and continual reminder to be very careful, for our work here still lacks the proper material. In addition we have to bear in mind that induction is intimately related to analogy. According to Lipps[2] the ground of one is the ground of the other; they both rest on the same foundation. ``If I am still in doubt whether the fact on which a moment ago I depended as the sufficient condition for a judgment may still be so regarded, the induction is uncertain. It is unjustified when I take for sufficiently valid something that as a matter of fact ought not to be so taken." If we bear in mind how much we are warned against the use of analogy, how it is expressly excluded in the application of certain criminal laws, and how dangerous the use of every analogy is, we must be convinced that the use for our cases of both induction and analogy, is always menace. We have at the same time to bear in mind how much use we actually make of both; even our general rules−−e. g., concerning false testimony,−−bias, reversibility, special inclinations, etc.−− and our doctrines concerning the composition and indirection of testimony, even our rules concerning the value of witnesses and confessions, all these depend upon induction and analogy. We pass by their use in every trial from case to case. A means so frequently and universally used must, however, be altogether reliable, or be handled with the greatest care. As it is not the first it must be handled in the second way.

We have yet to indicate the various ways in which induction may be used. Fick has already called attention to the astounding question concluding Mill's system of logic: Why, in many cases, is a single example sufficient to complete induction, while in other <139> cases myriads of unanimous instances admitting of no single known or suspected exception, make only a small step toward the establishment of a generally valid

judgment?

[1] James Sully: ``Die Illusionen" in Vol. 62 of the Internation. Wissensohft Bibliothek. Leipzig 1884.

[2] Th. Lipps: Grundtatssehen des Seelenlebens. Bonn 1883.

This question is of enormous significance in criminal cases because it is not easy to determine in any particular trial whether we have to deal with a situation of the first sort where a single example is evidential, or a situation of the second sort where a great many examples fail to be evidential. On this difficulty great mistakes depend, particularly mistakes of substitution of the first for the second. We are satisfied in such cases with a few examples and suppose ourselves to have proved the case although nothing whatever has been established.

We must see first of all if it is of any use to refer the difficulty of the matter to the form in which the question is put, and to say: The difficulty results from the question itself. If it be asked, ``Are any of the thousand marbles in the bag white marbles?" the question is determined by the first handful, if the latter brings to light a single white marble. If, however, the problem is phrased so: Does the bag contain white marbles _*only_? then, although 999 marbles might already have been drawn from the receptacle, it can not be determined that the last marble of the 1000 is white. In the same way, if people assert that the form of the question determines the answer, it does not follow that the form of the question is itself determined or distinguished inasmuch as the object belongs to the first or the second of the above named categories.

A safe method of distinction consists in calling the first form of the question positive and the second negative. The positive refers to a single unit; the negative to a boundless unit. If then I ask: Are there any white marbles whatever in the bag? the answer is rendered affirmative by the discovery of a single white marble. But if the question is phrased: Are there _*only_ white marbles in the bag? merely its form is positive but its intent is negative. To conform the manner of the question to its intent, it would be necessary to ask: Are there no other colors than white among the marbles in the bag? And inasmuch as the negative under given circumstances is in many ways boundless, the question admits of no answer until the last marble has been brought to light. If the total number of marbles is unlimited the question can receive no complete inductive answer in mathematical form; it can be solved only approximately. So again, if one asks: Are there any purely blue birds? the answer is affirmative as soon as a single completely blue bird is brought to <p 140> light. But if the question is: Do not also striped birds exist? no answer is possible until the very last bird on earth is exhibited. In that way only could the possibility be excluded that not one of the terrestrial fowls is striped. As a matter of fact we are satisfied with a much less complete induction. So we say: Almost the whole earth has been covered by naturalists and not one of them reports having observed a striped bird; hence there would be none such even in the unexplored parts of the earth. This is an inductive inference and its justification is quite another question.

The above mentioned distinction may be made still clearer if instead of looking back to the form of the question, we study only the answer. We have then to say that positive statements are justified by the existence of a single instance, negative assertions only by the complete enumeration of all possible instances and never at all if the instances be boundless. That the negative proof always requires a series of demonstrations is well known; the one thing which may be firmly believed is the fact that the problem, whether a single example is sufficient, or a million are insufficient, is only a form of the problem of affirmative and negative assertions.

So then, if I ask: Has A ever stolen anything? it is enough to record one judgment against him, or to bring one witness on the matter in order to establish that A committed theft at least once in his life. If, however, it is to be proved that the man has never committed a theft, his whole life must be reviewed point by point, and it must be shown that at no instant of it did he commit larceny. In such cases we are content with much less. We say first of all: We will not inquire whether the man has never stolen. We will see merely whether he was never punished for theft. But here, too, we must beware and not commit ourselves to inquiring of all the

authorities in the world, but only of a single authority, who, we assume, ought to know whether A was punished or not. If we go still further, we say that inasmuch as we have not heard from any authorities that the man was ever punished for stealing, we suppose that the man was never punished on that ground; and inasmuch as we have not examined anybody who had seen A steal, we preferably suppose that he has never stolen. This is what we call satisfactory evidence, and with the poor means at our disposal it must suffice.

In most cases we have to deal with mixed evidence, and frequently it has become habitual to change the problem to be solved according to our convenience, or at least to set aside some one thing. Sup− <p 141> pose that the issue deals with a discovered, well−retained footprint of a man. We then suspect somebody and compare the sole of his shoe with the impression. They fit in length and width, in the number of nails and in all the other possible indices, and we therefore assert: It is the footprint of the suspect, for ``whose footprint?'' is the problem we are troubling ourselves to solve. In truth we have only shown that the particular relations, in the matter of length, breadth, number of nails, etc., agree, and hence we regard the positive part of the evidence as sufficient and neglect the whole troublesome negative part, which might establish the fact that at the time and in the region in question, nobody was or could be whose foot could accurately fit that particular footprint. Therefore we have not proved but have only calculated the probability that at the time there might possibly not have been another person with a shoe of similar length, breadth and number of nails. The probability becomes naturally less as fewer details come to hand. The difficulty lies in finding where such probability, which stands for at least an assumption, must no longer be considered. Suppose, now, that neither shoe−nails nor patches, nor other clear clews can be proved and only length and width agree. If the agreement of the clews were really a substantiation of the proof by evidence, it would have to suffice as positive evidence; but as has been explained, the thing proved is not the point at issue, but another point.

The negative portion of the evidence will naturally be developed with less accuracy. The proof is limited to the assertion that such shoes as were indicated in the evidence were very rarely or never worn in that region, also that no native could have been present that the form of the nails allowed inference of somebody from foreign regions, one of which might be the home of the suspect, etc. Such an examination shows that what we call evidence is only probability or possibility.

Another form which seems to contradict the assertion that negative propositions are infinite is positive evidence in the shape of negation. If we give an expert a stain to examine and ask him whether it is a blood stain, and he tells us: ``It is not a blood stain,'' then this single scientifically established assertion proves that we do not have to deal with blood, and hence ``negative'' proof seems brought in a single instance. But as a matter of fact we deal here with an actually positive proof, for the expert has given us the deduced proposition, not the essential assertion. He has found the <p 142> stain to be a rust stain or a tobacco stain, and hence he may assert and deduce that it is not blood. Even were he a skeptic, he would say, ``We have not yet seen the blood of a mammal in which the characteristic signs for recognition were not present, and we have never yet recognized a body without the blood pertaining to it, and hence we may say, we are not dealing with blood because all of us found the characteristics of the stain to be what we have been until now accustomed to call the characteristics of rust stain.''

We have still to touch upon the difference between logical connection and experience. If I say, ``This mineral tastes salty, therefore it is soluble in water,'' the inference depends upon logical relationships, for my intent is: ``If I perceive a salty taste, it has to be brought to the nerves of taste, which can be done only by the combination of the mineral with the saliva, hence by its solution in the saliva. But if it is soluble in saliva it must also be soluble in water.'' If I say on the other hand, ``This mineral tastes salty, has a hardness of 2, a specific gravity of 2.2, and consequently it crystallizes hexagonally,''−−this statement depends on experience, for what I really say is: ``I know first of all, that a mineral which has the qualities mentioned must be rock salt; for at the least, we know of no mineral which has these qualities and is not rock salt, and which in the second place crystallizes hexagonally as rock salt does,−−a way which, at least, we find rock salt never to have missed.'' If we examine the matter still more closely we become convinced that in the first case only the formal and logical side, in the second the experiential aspect predominates. The premises of both cases are

purely matters of experience and the formal question of inference is a matter of logic. Only,−−at one time the first question, at another the second comes more obviously into the foreground. Although this matter appears self−evident it is not indifferent. It is well known that whenever we are powerfully influenced by one thing, things of little intensity are either not experienced at all or only to a very small degree, and are therefore neglected. This is a fact which may indeed be shown mathematically, for infinity plus one equals infinity. When, therefore, we undergo great pain or great joy, any accompanying insignificant pain or any pleasure will be barely felt, just as the horses who drag a very heavy wagon will not notice whether the driver walking beside them adds his coat to the load (cf. Weber's law). Hence, when we criminalists study a difficult case with regard to the question of proof, there are two things to do in order to test the premises for correctness accord− <p 143> ing to the standards of our other experiences, and to draw logically correct inferences from these premises. If it happens that there are especial difficulties in one direction while by some chance those in the other are easily removed, it becomes surprising how often the latter are entirely ignored. And hence, the adjustment of inferences is naturally false even when the great difficulties of the first type are removed correctly. Therefore, if the establishment of a fact costs a good deal of pains and means the expenditure of much time, the business of logical connection appears so comparatively easy that it is made swiftly and−−wrongly.

Mistakes become, at least according to my experience, still more frequent when the difficulty is logical and not empirical. As a matter of honesty, let me say that we criminalists are not trained logicians, however necessary it is that we shall be such, and most of us are satisfied with the barren remainder of what we learned long ago in the Gymnasium and have since forgotten. The difficulties which occur in the more important logical tasks are intelligible when compared with the lesser difficulties; and when one of these larger problems is by good fortune rightly solved, the effort and the work required by the solution make it easy to forget asking whether the premises are correct; they are assumed as self−evident. Hence, in the review of the basis for judgment, it is often discovered that the logical task has been performed with care, with the expenditure of much time, etc., only to be based upon some apparently unessential presupposition which contradicts all experience and is hence materially incorrect. Consequence,−−the inference is wrong since the premise was wrong, and the whole work has gone for nothing. Such occurrences convince one that no judge would have been guilty of them if the few difficulties concerning the fact in question were not, because treated in the light of the effort required by the logical work, quite neglected. Nor does this occur unconsciously, or as a consequence of a sort of lapse of memory concerning the meaning or the importance of an empirical problem, it also happens at least half consciously by way of a characteristic psychic process which everybody may identify in his own experience: i. e., the idea occurs, in some degree subconsciously, that the overgreatness of the work done in one direction ought to be corrected by the inadequacy of the work done in the other direction. And this happens in lawyer's work often, and being frequently justifiable, becomes habitual. If I, for example, have examined ten unanimous witnesses concerning the same event and have completely demonstrated <p 144> the status of the case, I ought, in examining the last two witnesses, who are perhaps no longer needed but have been summoned and appear, certainly to proceed in a rapid manner. This justifiable neglect is then half unconsciously transferred to other procedures where there is possible no equalization of the hypertrophy of work in one direction with the dwarfing of it in another, and where the mistake causes the result to be wrong. However I may have been bothered by the multiplication of ten groups of factors and whatever accuracy I may have applied to a task can not permit me to relax my attention in the addition of the individual results. If I do I am likely to commit an error and the error renders all the previous labor worthless.

Indeed, it may be asserted that all logic is futile where the premises or a single premise may be wrong. I expect, in truth, that the procedures here described will be doubted to be even possible, but doubters are recommended to examine a few cases for the presence of this sort of thing.

Section 27. (e) Analogy.

Analogy is the least negligible of all methods of induction because it rests at bottom on the postulate that one thing which has a number of qualities in common with another will agree with that other in one or more

*additional qualities. In cases of analogy, identity is never asserted; indeed, it is excluded, while a certain parallelism and agreement in specific points are assumed, i. e., introduced tacitly as a mutatis mutandis. Consider Lipps's examples. He calls analogy the transfer of judgment or the transition from similar to similar, and he adds that the value of such a process is very variable. If I have perceived x times that flowers of a certain color have perfume, I am inclined to expect perfume from flowers of the same color in x+1 cases. If I have observed x times that clouds of a certain structure are followed by rain I shall expect rain in the x+1st case. The first analogy is worthless because there is no relation between color and perfume; the second is of great value because such a relation does exist between rain and clouds.

Simply stated, the difference between these two examples does not consist in the existence of a relationship in the one case and the absence of a relationship in the other; it consists in the fact that in the case of the flowers the relationship occurs now and then but is not permanently knowable. It is possible that there is a natural law controlling the relation between color and odor, and if <p 145> that law were known there would be no question of accident or of analogy, but of law. Our ignorance of such a law, in spite of the multiplicity of instances, lies in the fact that we are concerned only with the converse relationships and not with the common cause of perfume and color. Suppose I see on the street a large number of people with winter over−coats and a large number of people with skates in their hands, I would hardly ask whether the coats are conditioned or brought out by the skates or the skates by the coats. If I do not conclude that the cold weather is the condition both of the need of over−coats and the utility of skates, I will suppose that there is some unintelligible reflexive relation between over−coats and skates. If I observe that on a certain day every week there regularly appear many well−dressed people and no workingmen on the street, if I am ignorant of the fact that Sunday is the cause of the appearance of the one and the disappearance of the other, I shall try in vain to find out how it happens that the working people are crowded out by the well−dressed ones or conversely.

The danger of analogy lies in the fact that we prefer naturally to depend on something already known, and that the preference is the greater in proportion to our feeling of the strangeness and ominousness of the particular intellectual or natural regions in which we find ourselves. I have already once demonstrated[1] how disquieting it is to notice, during the examination of the jury, that the jurymen who ask questions try to find some relation to their own trades even though this requires great effort, and seek to bring the case they are asking about under the light of their particular profession. So, however irrelevant the statement of a witness may be, the merchant juryman will use it to explain Saldo−Conti, the carpenter juryman to explain carpentry, the agriculturist to notice the farming of cattle, and then having set the problem in his own field construct the most daring analogies, for use in determining the guilt of the accused. And we lawyers are no better. The more difficult and newer a case is the more are we inclined to seek analogies. We want supports, for we do not find firm natural laws, and in our fear we reach out after analogies, not of course in law, because that is not permitted, but certainly in matters of fact. Witness X has given difficult testimony in a certain case. We seek an analogy in witness Y of an older case, and we observe the present issue thus analogically, without the least justification. We have never yet seen drops of blood on colored carpets, yet we believe in applying <p 146> our experience of blood stains on clothes and boots analogically. We have before us a perfectly novel deed rising from perverted sexual impulse−−and we presuppose that the accused is to be treated altogether analogously to another in a different case, although indeed the whole event was different.

[1] Manual for Examining Justices.

Moreover the procedure, where the analogy is justified, is complex. ``With insight," says Trendelenburg, ``did the ancients regard analogy as important. The power of analogy lies in the construction and induction of a general term which binds the subconcept with regard to which a conclusion is desired, together with the individual object which is compared with the first, and which is to appear as a mediating concept but can not. This new general term is not, however, the highest concept among the three termini of the conclusion; it is the middle one and is nothing else than the terminus medius of the first figure." This clear statement shows not only how circumstantial every conclusion from analogy is, but also how little it achieves. There is hardly any doubt of the well−known fact that science has much to thank analogy for, since analogy is the simplest and

easiest means for progress in thought. If anything is established in any one direction but progress is desired in another, then the attempt is made to adapt what is known to the proximate unknown and to draw the possible inference by analogy. Thousands upon thousands of analogies have been attempted and have failed,−− but no matter; one successful one became a hypothesis and finally an important natural law. In our work, however, the case is altogether different, for we are not concerned with the construction of hypotheses, we are concerned with the discovering of truth, or with the recognition that it cannot be discovered.

The only place where our problems permit of the use of analogy is in the making of so−called constructions, i. e., when we aim to clarify or to begin the explanation of a case which is at present unintelligible, by making some assumption. The construction then proceeds in analogy to some already well known earlier case. We say: ``Suppose the case to have been so and so,'' and then we begin to test the assumption by applying it to the material before us, eliminating and constructing progressively until we get a consistent result. There is no doubt that success is frequently attained in this way and that it is often the only way in which a work may be begun. At the same time, it must be recognized how dangerous this is, for in the eagerness of the work it is easy to forget that so far, one is working only according to analogy by means of an assumption <p 147> still to be proved. This assumption is in such cases suddenly considered as something already proved and is counted as such with the consequence that the result must be false. If you add the variability in value of analogy, a variability not often immediately recognized, the case becomes still worse. We have never been on the moon, have therefore apparently no right to judge the conditions there−−and still we know−−only by way of analogy−− that if we jumped into the air there we should fall back to the ground. But still further: we conclude again, by analogy, that there are intelligent beings on Mars; if, however, we were to say how these people might look, whether like us or like cubes or like threads, whether they are as large as bees or ten elephants, we should have to give up because we have not the slightest basis for analogy.

In the last analysis, analogy depends upon the recurrence of similar conditions. Therefore we tacitly assume when we judge by analogy that the similarity of conditions contains an equivalence of ultimately valid circumstance. The certainty of analogy is as great as the certainty of this postulate, and its right as great as the right of this postulate.

If, then, the postulate is little certain, we have gained nothing and reach out into the dark; if its certainty is great we no longer have an analogy, we have a natural law. Hence, Whately uses the term analogy as an expression for the similarity of relation, and in this regard the use of analogy for our real work has no special significance. Concerning so−called false analogies and their importance cf. J. Schiel's Die Methode der induktiven Forschung (Braunschweig 1868).

Section 28. (f) Probability.

Inasmuch as the work of the criminal judge depends upon the proof of evidence, it is conceivable that the thing for him most important is that which has evidential character or force.[1] A sufficient definition of evidence or proof does not exist because no bounds have been set to the meaning of ``Proved.'' All disciplines furnish examples of the fact that things for a long time had probable validity, later indubitable validity; that again some things were considered proved and were later shown to be incorrect, and that many things at one time wobbly are in various places, and even among particular persons, supposed to be at the limits of probability and proof. Es− <p 148> pecially remarkable is the fact that the concept of _*the proved_ is very various in various sciences, and it would be absorbing to establish the difference between what is called proved and what only probable in a number of given examples by the mathematician, the physicist, the chemist, the physician, the naturalist, the philologist, the historian, the philosopher, the lawyer, the theologian, etc. But this is no task for us and nobody is called upon to determine who knows what ``Proved'' means. It is enough to observe that the differences are great and to understand why we criminalists have such various answers to the question: Is this proved or only probable? The varieties may be easily divided into groups according to the mathematical, philosophic, historical or naturalistic inclinations of the answerer. Indeed, if the individual is known, what he means by ``proved'' can be determined beforehand. Only those minds that

have no especial information remain confused in this regard, both to others and to themselves.

[1] B. Petronievics: Der Satz vom Grunde. Leipzig 1898.

Sharply to define the notion of ``proved'' would require at least to establish its relation to usage and to say: What we desire leads us to an _*assumption_, what is possible gives us _*probability_, what appears certain, we call _*proved_. In this regard the second is always, in some degree, the standard for the first (desires, e. g., cause us to act; one becomes predominant and is fixed as an assumption which later on becomes clothed with a certain amount of reliability by means of this fixation).

The first two fixations, the assumption and the probability, have in contrast to their position among other sciences only a heuristic interest to us criminalists. Even assumptions, when they become hypotheses, have in various disciplines a various value, and the greatest lucidity and the best work occur mainly in the quarrel about an acutely constructed hypothesis.

*Probability has a similar position in the sciences. The scholar who has discovered a new thought, a new order, explanation or solution, etc., will find it indifferent whether he has made it only highly probable or certain. He is concerned only with the idea, and a scholar who is dealing with the idea for its own sake will perhaps prefer to bring it to a great probability rather than to indubitable certainty, for where conclusive proof is presented there is no longer much interest in further research, while probability permits and requires further study. But our aim is certainty and proof only, and even a high degree of probability is no better than untruth and can not count. In passing judgment and for the purpose of judgment <p 149> a high degree of probability can have only corroborative weight, and then it is probability only when taken in itself, and proof when taken with regard to the thing it corroborates. If, for example, it is most probable that X was recognized at the place of a crime, and if at the same time his evidence of alibi has failed, his footmarks are corroborative; so are the stolen goods which have been seen in his possession, and something he had lost at the place of the crime which is recognized as his property, etc. ln short, when all these indices are in themselves established only as highly probable, they give under certain circumstances, when taken together, complete certainty, because the coincidence of so many high probabilities must be declared impossible if X were not the criminal.

In all other cases, as we have already pointed out, _*assumption_ and probability have only a heuristic value for us lawyers. With the assumption, we must of course count; many cases can not be begun without the assistance of assumption. Every only half− confused case, the process of which is unknown, requires first of all and as early as possible the application of some assumption to its material. As soon as the account is inconsistent the assumption must be abandoned and a fresh one and yet again a fresh one assumed, until finally one holds its own and may be established as probable. It then remains the center of operation, until it becomes of itself a proof or, as we have explained, until so many high probabilities in various directions have been gathered, that, taken in their order, they serve evidentially. A very high degree of probability is sufficient in making complaints; but sentencing requires ``certainty,'' and in most cases the struggle between the prosecution and the defense, and the doubt of the judge, turns upon the question of probability as against proof.[1]

[1] Of course we mean by ``proof'' as by ``certainty'' only the highest possible degree of probability.

That probability is in this way and in a number of relations, of great value to the criminalist can not appear doubtful. Mittermaier defines its significance briefly: ``Probability naturally can never lead to sentence. It is, however, important as a guide for the conduct of the examiner, as authorizing him to take certain measures; it shows how to attach certain legal processes in various directions.''

Suppose that we review the history of the development of the theory of probability. The first to have attempted a sharp distinction between demonstrable and probable knowledge was Locke. Leibnitz was the first to recognize the importance of the theory <p 150> of probability for inductive logic. He was succeeded

by the mathematician Bernoulli and the revolutionist Condorcet. The theory in its modern form was studied by Laplace, Quetelet, Herschel, von Kirchmann, J. von Kries, Venn, Cournot, Fick, von Bortkiewicz, etc. The concept that is called probability varies with different authorities. Locke[1] divides all fundamentals into demonstrative and probable. According to this classification it is probable that ``all men are mortal," and that ``the sun will rise to−morrow." But to be consistent with ordinary speech the fundamentals must be classified as evidence, certainties, and probabilities. By certainties I understand such fundamentals as are supported by experience and leave no room for doubt or consideration−−everything else, especially as it permits of further proof, is more or less probable.

[1] Locke: Essay on the Human Understanding.

Laplace[2] spoke more definitely−−``Probability depends in part on our ignorance, in part on our knowledge . . .

[2] Laplace: Essay Philosophique sur les Probabilit<e'>s. Paris 1840.

``The theory of probability consists in the reduction of doubts of the same class of a definite number of equally possible cases in such a way that we are equally undetermined with regard to their existence, and it further consists in the determination of the number of those cases which are favorable to the result the probability of which is sought. The relation of this number to the number of all possible cases is the measure of the probability. It is therefore a fraction the numerator of which is derived from the number of cases favorable to the result and the denominator from the number of all possible cases." Laplace, therefore, with J. S. Mill, takes probability to be a low degree of certainty, while Venn[3] gives it an objective support like truth. The last view has a great deal of plausibility inasmuch as there is considerable doubt whether an appearance is to be taken as certain or as only probable. If this question is explained, the assertor of certainty has assumed some objective foundation which is indubitable at least subjectively. Fick represents the establishment of probability as a fraction as follows: ``The probability of an incompletely expressed hypothetical judgment is a real fraction proved as a part of the whole universe of conditions upon which the realization of the required result necessarily depends.

[3] Venn: The Logic of Chance.

``According to this it is hardly proper to speak of the probability of any result. Every individual event is either absolutely necessary <p 151> or impossible. The probability is a quality which can pertain only to a hypothetical judgment."[1]

[1] Philos. Versuch <u:>ber die Wahrscheinlichkeiten. W<u:>rzburg 1883.

That it is improper to speak of the probability of a result admits of no doubt, nor will anybody assert that the circumstance of to− morrow's rain is in itself probable or improbable−−the form of expression is only a matter of usage. It is, however, necessary to distinguish between conditioned and unconditioned probability. If I to−day consider the conditions which are attached to the ensuing change of weather, if I study the temperature, the barometer, the cloud formation, the amount of sunlight, etc., as conditions which are related to to−morrow's weather as its forerunners, then I must say that to−morrow's rain is probable to such or such a degree. And the correctness of my statement depends upon whether I know the conditions under which rain _*must_ appear, more or less accurately and completely, and whether I relate those conditions properly. With regard to unconditioned probabilities which have nothing to do with the conditions of to−day's weather as affecting to−morrow's, but are simply observations statistically made concerning the number of rainy days, the case is quite different. The distinction between these two cases is of importance to the criminalist because the substitution of one for the other, or the confusion of one with the other, will cause him to confuse and falsely to interpret the probability before him. Suppose, e. g., that a murder has happened in Vienna, and suppose that I declare immediately after the crime and in full knowledge of the facts, that according to the

facts, i. e., according to the conditions which lead to the discovery of the criminal, there is such and such a degree of probability for this discovery. Such a declaration means that I have calculated a conditioned probability. Suppose that on the other hand, I declare that of the murders occurring in Vienna in the course of ten years, so and so many are unexplained with regard to the personality of the criminal, so and so many were explained within such and such a time,−−and consequently the probability of a discovery in the case before us is so and so great. In the latter case I have spoken of unconditioned probability. Unconditioned probability may be studied by itself and the event compared with it, but it must never be counted on, for the positive cases have already been reckoned with in the unconditioned percentage, and therefore should not be counted another time. Naturally, in practice, neither form of probability is frequently calculated in figures; only an approximate <p 152> interpretation of both is made. Suppose that I hear of a certain crime and the fact that a footprint has been found. If without knowing further details, I cry out: ``Oh! Footprints bring little to light!" I have thereby asserted that the statistical verdict in such cases shows an unfavorable percentage of unconditional probability with regard to positive results. But suppose that I have examined the footprint and have tested it with regard to the other circumstances, and then declared: ``Under the conditions before us it is to be expected that the footprint will lead to results"−− then I have declared, ``According to the conditions the conditioned probability of a positive result is great." Both assertions may be correct, but it would be false to unite them and to say, ``The conditions for results are very favorable in the case before us, but generally hardly anything is gained by means of footprints, and hence the probability in this case is small." This would be false because the few favorable results as against the many unfavorable ones have already been considered, and have already determined the percentage, so that they should not again be used.

Such mistakes are made particularly when determining the complicity of the accused. Suppose we say that the manner of the crime makes it highly probable that the criminal should be a skilful, frequently−punished thief, i. e., our probability is conditioned. Now we proceed to unconditioned probability by saying: ``It is a well−known fact that frequently−punished thieves often steal again, and we have therefore two reasons for the assumption that X, of whom both circumstances are true, was the criminal." But as a matter of fact we are dealing with only one identical probability which has merely been counted in two ways. Such inferences are not altogether dangerous because their incorrectness is open to view; but where they are more concealed great harm may be done in this way.

A further subdivision of probability is made by Kirchmann.[1] He distinguished:

[1] <U:>ber die Wahrscheinlicbkeit, Leipzig 1875.

(1) General probability, which depends upon the causes or consequences of some single uncertain result, and derives its character from them. An example of the dependence on causes is the collective weather prophecy, and of dependence on consequences is Aristotle's dictum, that because we see the stars turn the earth must stand still. Two sciences especially depend upon such probabilities: history and law, more properly the practice and use of criminal <p 153> law. Information imparted by men is used in both sciences, this information is made up of effects and hence the occurrence is inferred from as cause.

(2) Inductive probability. Single events which must be true, form the foundation, and the result passes to a valid universal. (Especially made use of in the natural sciences, e. g., in diseases caused by bacilli; in case X we find the appearance A and in diseases of like cause Y and Z, we also find the appearance A. It is therefore probable that all diseases caused by bacilli will manifest the symptom A.)

(3) Mathematical Probability. This infers that A is connected either with B or C or D, and asks the degree of probability. I. e.: A woman is brought to bed either with a boy or a girl: therefore the probability that a boy will be born is one−half.

Of these forms of probability the first two are of equal importance to us, the third rarely of value, because we lack arithmetical cases and because probability of that kind is only of transitory worth and has always to be so

studied as to lead to an actual counting of cases. It is of this form of probability that Mill advises to know, before applying a calculation of probability, the necessary facts, i. e., the relative frequency with which the various events occur, and to understand clearly the causes of these events. If statistical tables show that five of every hundred men reach, on an average, seventy years, the inference is valid because it expresses the existent relation between the causes which prolong or shorten life.

A further comparatively self−evident division is made by Cournot, who separates subjective probability from the possible probability pertaining to the events as such. The latter is objectively defined by Kries[1] in the following example:

[1] J. v. Kries: <U:>ber die Wahrseheinlichkeit Il. M<o:>glichkeit u. ihre Bedeutung in Strafrecht. Zeitschrift f. d. ges. St. R. W. Vol. IX, 1889.

``The throw of a regular die will reveal, in the great majority of cases, the same relation, and that will lead the mind to suppose it objectively valid. It hence follows, that the relation is changed if the shape of the die is changed." But how ``this objectively valid relation," i. e., substantiation of probability, is to be thought of, remains as unclear as the regular results of statistics do anyway. It is hence a question whether anything is gained when the form of calculation is known.

Kries says, ``Mathematicians, in determining the laws of probability, have subordinated every series of similar cases which take <p 154> one course or another as if the constancy of general conditions, the independence and chance equivalence of single events, were identical throughout. Hence, we find there are certain simple rules according to which the probability of a case may be calculated from the number of successes in cases observed until this one and from which, therefore, the probability for the appearance of all similar cases may be derived. These rules are established without any exception whatever." This statement is not inaccurate because the general applicability of the rules is brought forward and its use defended in cases where the presuppositions do not agree. Hence, there are delusory results, e. g., in the calculation of mortality, of the statements of witnesses and judicial deliverances. These do not proceed according to the schema of the ordinary play of accident. The application, therefore, can be valid only if the constancy of general conditions may be reliably assumed.

But this evidently is valid only with regard to unconditioned probability which only at great intervals and transiently may influence our practical work. For, however well I may know that according to statistics every xth witness is punished for perjury, I will not be frightened at the approach of my xth witness though he is likely, according to statistics, to lie. In such cases we are not fooled, but where events are confused we still are likely to forget that probabilities may be counted only from great series of figures in which the experiences of individuals are quite lost.

Nevertheless figures and the conditions of figures with regard to probability exercise great influence upon everybody; so great indeed, that we really must beware of going too far in the use of figures. Mill cites a case of a wounded Frenchman. Suppose a regiment made up of 999 Englishmen and one Frenchman is attacked and one man is wounded. No one would believe the account that this one Frenchman was the one wounded. Kant says significantly: ``If anybody sends his doctor 9 ducats by his servant, the doctor certainly supposes that the servant has either lost or otherwise disposed of one ducat." These are merely probabilities which depend upon habits. So, it may be supposed that a handkerchief has been lost if only eleven are found, or people may wonder at the doctor's ordering a tablespoonful every five quarters of an hour, or if a job is announced with $2437 a year as salary.

But just as we presuppose that wherever the human will played any part, regular forms will come to light, so we begin to doubt that such forms will occur where we find that accident, natural <p 155> law, or the unplanned co<o:>peration of men were determining factors, If I permit anybody to count up accidentally concurrent things and he announces that their number is one hundred, I shall probably have him count over

again. I shall be surprised to hear that somebody's collection contains exactly 1000 pieces, and when any one cites a distance of 300 steps I will suppose that he had made an approximate estimation but had not counted the steps. This fact is well known to people who do not care about accuracy, or who want to give their statements the greatest possible appearance of correctness; hence, in citing figures, they make use of especially irregular numbers, e. g. 1739, <7/8>, 3.25%, etc. I know a case of a vote of jurymen in which even the proportion of votes had to be rendered probable. The same jury had to pass that day on three small cases. In the first case the proportion was 8 for, 4 against, the second case showed the same proportion and the third case the same. But when the foreman observed the proportion he announced that one juryman must change his vote because the same proportion three times running would appear too improbable! If we want to know the reason for our superior trust in irregularity in such cases, it is to be found in the fact that experience shows nature, in spite of all her marvelous orderliness in the large, to be completely free, and hence irregular in little things. Hence, as Mill shows in more detail, we expect no identity of form in nature. We do not expect next year to have the same order of days as this year, and we never wonder when some suggestive regularity is broken by a new event. Once it was supposed that all men were either black or white, and then red men were discovered in America. Now just exactly such suppositions cause the greatest difficulties, because we do not know the limits of natural law. For example, we do not doubt that all bodies on earth have weight. And we expect to find no exception to this rule on reaching some undiscovered island on our planet; all bodies will have weight there as well as everywhere else. But the possibility of the existence of red men had to be granted even before the discovery of America. Now where is the difference between the propositions: All bodies have weight, and, All men are either white or black? It may be said circularly the first is a natural law and the second is not. But why not? Might not the human body be so organized that according to the natural law it would be impossible for red men to exist? And what accurate knowledge have we of pigmentation? Has anybody ever seen a green horse? And is the accident that nobody has ever seen one to prevent the <p 156> discovery of green horses in the heart of Africa? May, perhaps, somebody not breed green horses by crossings or other experiments? Or is the existence of green horses contrary to some unknown but invincible natural law? Perhaps somebody may have a green horse to−morrow; perhaps it is as impossible as water running up hill.

To know whether anything is natural law or not always depends upon the grade and standing of our immediate experience−−and hence we shall never be able honestly to make any universal proposition. The only thing possible is the greatest possible accurate observation of probability in all known possible cases, and of the probability of the discovery of exceptions. Bacon called the establishment of reliable assumptions, counting up without meeting any contradictory case. But what gives us the law is the manner of counting. The untrained mind accepts facts as they occur without taking the trouble to seek others; the trained mind seeks the facts he needs for the premises of his inference. As Mill says, whatever has shown itself to be true without exception may be held universal so long as no doubtful exception is presented, and when the case is of such a nature that a real exception could not escape our observation.

This indicates how we are to interpret information given by others. We hear, ``Inasmuch as this is always so it may be assumed to be so in the present case." Immediate acceptance of this proposition would be as foolhardy as doubt in the face of all the facts. The proper procedure is to examine and establish the determining conditions, i. e., who has counted up this ``always," and what caution was used to avoid the overlooking of any exception. The real work of interpretation lies in such testing. We do not want to reach the truth with one blow, we aim only to approach it. But the step must be taken and we must know how large it is to be, and know how much closer it has brought us to the truth. And this is learned only through knowing who made the step and how it was made. Goethe's immortal statement, ``Man was not born to solve the riddle of the universe, but to seek out what the problem leads to in order to keep himself within the limits of the conceivable," is valid for us too.

Our great mistake in examining and judging often lies in our setting too much value upon individual circumstances, and trying to solve the problem with those alone, or in not daring to use any given circumstance sufficiently. The latter represents that stupidity which is of use to scientific spirits when they

lack complete proof <p 157> of their points, but is dangerous in practical affairs. As a rule, it is also the consequence of the failure to evaluate what is given, simply because one forgets or is too lazy to do so. Proper action in this regard is especially necessary where certain legal proceedings have to occur which are entitled to a definite degree of probability without requiring certainty, i. e., preliminary examinations, arrests, investigations of the premises, etc. No law says how much probability is in such cases required. To say how much is impossible, but it is not unwise to stick to the notion that the event must appear true, if not be proved true, i. e., nothing must be present to destroy the appearance of truth. As Hume says, ``Whenever we have reason to trust earlier experiences and to take them as standards of judgment of future experiences, these reasons may have probability."

The place of probability in the positive determination of the order of modern criminal procedure is not insignificant. When the law determines upon a definite number of jurymen or judges, it is probable that this number is sufficient for the discovery of the truth. The system of prosecution establishes as a probability that the accused is the criminal. The idea of time−lapse assumes the probability that after the passage of a certain time punishment becomes illusory, and prosecution uncertain and difficult. The institution of experts depends on the probability that the latter make no mistakes. The warrant for arrest depends on the probability that the accused behaved suspiciously or spoke of his crime, etc. The oath of the witness depends on the probability that the witness will be more likely to tell the truth under oath, etc.

Modern criminal procedure involves not only probabilities but also various types of possibility. Every appeal has for its foundation the possibility of an incorrect judgment; the exclusion of certain court officials is based on the possibility of prejudice, or at least on the suspicion of prejudice; the publicity of the trial is meant to prevent the possibility of incorrectness; the revision of a trial depends on the possibility that even legal sentences may be false and the institution of the defendant lawyer depends upon the possibility that a person without defense may receive injustice. All the formalities of the action of the court assume the possibility that without them improprieties may occur, and the institution of seizing letters and messages for evidence, asserts only the possibility that the latter contain things of importance, etc.

When the positive dicta of the law deal with possibility and proba− <p 158> bility in questions of great importance the latter become especially significant.

We have yet to ask what is meant by ``rule" and what its relation is to probability. Scientifically ``rule" means law subjectively taken and is of equal significance with the guiding line for one's own conduct, whence it follows that there are only rules of art and morality, but no rules of nature. Usage does not imply this interpretation. We say that as a rule it hails only in the daytime; by way of exception, in the night also; the rule for the appearance of whales indicates that they live in the Arctic Ocean; a general rule indicates that bodies that are especially soluble in water should dissolve more easily in warm than in cold water, but salt dissolves equally well in both. Again we say: As a rule the murderer is an unpunished criminal; it is a rule that the brawler is no thief and vice versa; the gambler is as a rule a man of parts, etc. We may say therefore, that regularity is equivalent to customary recurrence and that whatever serves as rule may be expected as probable. If, i. e., it be said, that this or that happens as a rule, we may suppose that it will repeat itself this time. It is not permissible to expect more, but it frequently happens that we mistake rules permitting exceptions for natural laws permitting none. This occurs frequently when we have lost ourselves in the regular occurrences for which we are ourselves responsible and suppose that because things have been seen a dozen times they must always appear in the same way. It happens especially often when we have heard some phenomenon described in other sciences as frequent and regular and then consider it to be a law of nature. In the latter case we have probably not heard the whole story, nor heard general validity assigned to it. Or again, the whole matter has long since altered. Lotze wrote almost half a century ago, that he had some time before made the statistical observation that the great positive discoveries of exact physiology have an average life of about four years. This noteworthy statement indicates that great positive discoveries are set up as natural laws only to show themselves as at most regular phenomena which have no right to general validity. And what is true of physiology is true of many other sciences, even of the great discoveries of medicine, even legal medicine.

This, therefore, should warn against too much confidence in things that are called ``rules." False usage and comfortable dependence upon a rule have very frequently led us too far. Its unreliability is shown by such maxims as ``Three misses make a rule" or ``Many stupidities <p 159> taken together give a golden rule of life," or ``To−day's exception is to−morrow's rule," or the classical perversion: ``The rule that there are no rules without exception is a rule without exception, hence, there is one rule without exception."

The unreliability of rules is further explained by their rise from generalization. We must not generalize, as Schiel says, until we have shown that if there are cases which contradict our generalizations we know those contradictions. In practice approximate generalizations are often our only guides. Natural law is too much conditioned, cases of it too much involved, distinctions between them too hard to make, to allow us to determine the existence of a natural phenomenon in terms of its natural characteristics as a part of the business of our daily life. Our own age generalizes altogether too much, observes too little, and abstracts too rapidly. Events come quickly, examples appear in masses, and if they are similar they tend to be generalized, to develop into a rule, while the exceptions which are infinitely more important are unobserved, and the rule, once made, leads to innumerable mistakes.

Section 29. (g) Chance.

The psychological significance of what we call chance depends upon the concept of chance and the degree of influence that we allow it to possess in our thinking. What is generally called chance, and what is called chance in particular cases, will depend to a significant degree upon the nature of the case. In progressive sciences the laws increase and the chance−happenings decrease; the latter indeed are valid only in particular cases of the daily life and in the general business of it. We speak of chance or accident when events cross which are determined in themselves by necessary law, but the law of the crossing of which is unknown. If, e. g., it is observed that where there is much snow the animals are white, the event must not be attributed to accident, for the formation of snow in high mountains or in the north, and its long stay on the surface of the earth develop according to special natural laws, and the colors of animals do so no less−−but that these two orderly series of facts should meet requires a third law, or still better, a third group of laws, which though unknown some time ago, are now known to every educated person.

For us lawyers chance and the interpretation of it are of immense importance not only in bringing together evidence, but in every case of suspicion, for the problem always arises whether a causal <p 160> relation may be established between the crime and the suspect, or whether the relation is only accidental. ``Unfortunate coincidence" −−``closely related connection of facts"−−``extraordinary accumulation of reason for suspicion,"−−all these terms are really chance mistaken for causation. On the knowledge of the difference between the one and the other depends the fate of most evidence and trials. Whoever is fortunate enough in rightly perceiving what chance is, is fortunate in the conduct of his trial.

Is there really a theory of chance? I believe that a direct treatment of the subject is impossible. The problem of chance can be only approximately explained when all conceivable chance−happenings of a given discipline are brought together and their number reduced by careful search for definite laws. Besides, the problem demands the knowledge of an extremely rich casuistry, by means of which, on the one hand, to bring together the manifoldness of chance events, and on the other to discover order. Enough has been written about chance, but a systematic treatment of it must be entirely theoretical. So Windelband's[1] excellent and well−ordered book deals with relations (chance and cause, chance and law, chance and purpose, chance and concept) the greatest value of which is to indicate critically the various definitions of the concept of chance. Even though there is no definition which presents the concept of chance in a completely satisfactory manner, the making of such definitions is still of value because one side of chance is explained and the other is thereby seen more closely. Let us consider a few of these and other definitions. Aristotle says that the accidental occurs, <gr para fusin>, according to nature. Epicurus, who sees the creation of the world as a pure accident, holds it to occur <gr ta men apo> <gr tuchs, ta de par hmwn>. Spinoza believes nothing to be contingent save only according to the limitations of knowledge; Kant says that conditioned existence as such, is called accidental; the

unconditioned, necessary. Humboldt: ``Man sees those things as accident which he can not explain genetically." Schiel: ``Whatever may not be reduced back to law is called accidental." Quetelet: ``The word chance serves officiously to hide our ignorance." Buckle derives the idea of chance from the life of nomadic tribes, which contains nothing firm and regulated. According to Trendelenburg chance is that which could not be otherwise. Rosenkranz says: Chance is a reality which has only the value of possibility, while Fischer calls chance the individualized fact, and Lotze identifies it <p 161> with everything that is not valid as a natural purpose. For Windelband ``chance consists, according to usage, in the merely factual but not necessary transition from a possibility to an actuality. Chance is the negation of necessity. It is a contradiction to say `This happened by accident,' for the word `by' expressed a cause."

[1] Windelband: Die Lehren vom Zufall. Berlin 1870.

A. H<o:>fler[1] says most intelligently, that the contradiction of the idea of chance by the causal law may be easily solved by indicating the especial relativity of the concept. (Accidental with regard to _*one_, but otherwise appearing as a possible causal series).

[1] Cf. S. Freud: Psychopathologie des Alltagsleben.

The lesson of these definitions is obvious. What we call chance plays a great r<o^>le in our legal work. On our recognizing a combination of circumstances as accidental the result of the trial in most cases depends, and the distinction between accident and law depends upon the amount of knowledge concerning the events of the daily life especially. Now the use of this knowledge in particular cases consists in seeking out the causal relation in a series of events which are adduced as proof, and in turning accident into order. Or, in cases where the law which unites or separates the events can not be discovered, it may consist in the very cautious interpretation of the combination of events on the principle *simul cum hoc non est propter hoc*.

Section 30. (h) Persuasion and Explanation.

How in the course of trial are people convinced? The criminalist has as presiding officer not only to provide the truth which convinces; it is his business as state official to convince the defendant of the correctness of the arguments adduced, the witness of his duty to tell the truth. But he again is often himself convinced by a witness or an accused person−−correctly or incorrectly. Mittermaier[2] calls conviction a condition in which our belief−it−is−true depends on full satisfactory grounds of which we are aware. But this state of conviction is a goal to be reached and our work is not done until the convincing material has been provided. Seeking the truth is not enough. Karl Gerock assures us that no philosophical system offers us the full and finished truth, but there is a truth for the idealist, and to ask Pilate's blas<e'> question is, as Lessing suggests, rendering the answer impossible. But this shows the difference between scientific and practical work; science may be satisfied with seeking truth, but we must possess truth. If it were true that truth alone <p 162> is convincing, there would not be much difficulty, and one might be content that one is convinced only by what is correct. But this is not the case. Statistically numbers are supposed to prove, but actually numbers prove according to their uses. So in the daily life we say facts are proofs when it would be more cautious to say: facts are proofs according to their uses. It is for this reason that sophistical dialectic is possible. Arrange the facts in one way and you reach one result, arrange the facts another way and you may reach the opposite. Or again, if you study the facts in doubtful cases honestly and without prejudice you find how many possible conclusions may be drawn, according to their arrangement. We must, of course, not have in mind that conviction and persuasion which is brought about by the use of many words. We have to consider only that adduction of facts and explanation, simple or complex, in a more or less skilful, intentional or unintentional manner, by means of which we are convinced at least for a moment. The variety of such conviction is well known to experience.

[2] C. J. A. Mittermaier: Die Lehre vom Beweise.

``The na<i:>vet<e'> of the first glance often takes the prize from scholarship. All hasty, decisive judgment

betrays, when it becomes habitual, superficiality of observation and impiety against the essential character of particular facts. Children know as completely determined and certain a great deal which is doubtful to the mature man" (V. Volkmar).

So, frequently, the simplest thing we are told gets its value from the manner of telling, or from the person of the narrator. And inasmuch as we ourselves are much more experienced and skilful in arranging and grouping facts than are our witnesses and the accused, it often happens that we persuade these people and that is the matter which wants consideration.

Nobody will assert that it will occur to any judge to persuade a witness to anything which he does not thoroughly believe, but we know how often we persuade ourselves to some matter, and nothing is more conceivable than that we might like to see other people agree with us about it. I believe that the criminalist, because, let us say, of his power, as a rule takes his point of view too lightly. Every one of us, no doubt, has often begun his work in a small and inefficient manner, has brought it along with mistakes and scantiness and when finally he has reached a somewhat firm ground, he has been convinced by his failures and mistakes of his ignorance and inadequacy. Then he expected that this conviction would be obvious also to other people whom he was examining. But this obviousness <p 163> is remarkably absent, and all the mistakes, cruelties, and miscarriages of justice, have not succeeded in robbing it of the dignity it possesses in the eyes of the nation. Perhaps the goodwill which may be presupposed ought to be substituted for the result, but it is a fact that the layman presupposes much more knowledge, acuteness, and power in the criminalist than he really possesses. Then again, it is conceivable that a single word spoken by the judge has more weight than it should have, and then when a real persuasion−− evidently in the best sense of the word−−is made use of, it must be influential. I am certain that every one of us has made the frightful observation that by the end of the examination the witness has simply taken the point of view of the examiner, and the worst thing about this is that the witness still thinks that he is thinking in his own way.

The examiner knows the matter in its relation much better, knows how to express it more beautifully, and sets pretty theories going. The witness, to whom the questions are suggestive, becomes conceited, likes to think that he himself has brought the matter out so excellently, and therefore is pleased to adopt the point of view and the theories of the examiner who has, in reality, gone too far in his eagerness. There is less danger of this when educated people are examined for these are better able to express themselves; or again when women are examined for these are too obstinate to be persuaded, but with the great majority the danger is great, and therefore the criminalist can not be told too often how necessary it is that he shall meet his witness with the least conceivable use of eloquence.

Forensic persuasion is of especial importance and has been considered so since classical days, whether rightly, is another question. The orations of state prosecutors and lawyers for the defense, when made before scholarly judges, need not be held important. If individuals are ever asked whether they were persuaded or made doubtful by the prosecutor or his opponent they indicate very few instances. A scholarly and experienced judge who has not drawn any conclusions about the case until the evidence was all in need hardly pay much attention to the pleaders. It may indeed be that the prosecution or defense may belittle or intensify one or another bit of evidence which the bench might not have thought of; or they may call attention to some reason for severity or mercy. But on the one hand if this is important it will already have been touched in the adduction of evidence, and on the other hand such points are <p 164> generally banal and indifferent to the real issue in the case. If this be not so it would only indicate that either we need a larger number of judges, or even when there are many judges that one thing or another may be overlooked.

But with regard to the jury the case is quite different; it is easily influenced and more than makes up for the indifference of the bench. Whoever takes the trouble to study the faces of the jury during trial, comes to the conclusion that the speeches of the prosecution and defense are the most important things in the trial, that they absorb most of the attention of the jury, and that the question of guilt or innocence does not depend upon the number and weight of the testimony but upon the more or less skilful interpretation of it. This is a reproach

not to the jury but to those who demand from it a service it can not render. It is first necessary to understand how difficult the conduct of a trial is. In itself the conduct of a jury trial is no art, and when compared with other tasks demanded of the criminalist may be third or fourth in difficulty. What is difficult is the determination of the chronological order in which to present evidence, i. e., the drawing of the brief. If the brief is well drawn, everything develops logically and psychologically in a good way and the case goes on well; but it is a great and really artistic task to draw this brief properly. There are only two possibilities. If the thing is not done, or the brief is of no use, the case goes on irrelevantly, illogically and unintelligibly and the jury can not understand what is happening. If the trick is turned, however, then like every art it requires preparation and intelligence. And the jury do not possess these, so that the most beautiful work of art passes by them without effect. They therefore must turn their attention, to save what can be saved, upon the orations of the prosecution and defense. These reproduce the evidence for them in some intelligible fashion and the verdict will be innocence or guilt according to the greater intelligence of one or the other of the contending parties. Persuasiveness at its height, Hume tells us, leaves little room for intelligence and consideration. It addresses itself entirely to the imagination and the affections, captures the well−inclined auditors, and dominates their understanding. Fortunately this height is rarely reached. In any event, this height, which also dominates those who know the subject, will always be rare, yet the jury are not people of knowledge and hence dominations ensue, even through attempts at persuasiveness which have attained no height whatever. Hence the great danger. <p 165>

The only help against this is in the study by the presiding justice, not as lawyer but as psychologist, of the faces of the jury while the contending lawyers make their addresses. He must observe very narrowly and carefully every influence exercised by the speeches, which is irrelevant to the real problem, and then in summing up call it to the attention of the jury and bring them back to the proper point of view. The ability to do this is very marvelous, but it again is an exceedingly difficult performance.

Nowadays persuadability is hardly more studied but anybody who has empirically attained some proficiency in it has acquired the same tricks that are taught by theory. But these must be known if they are to be met effectively. Hence the study of the proper authors can not be too much recommended. Without considering the great authors of the classical period, especially Aristotle and Cicero, there are many modern ones who might be named.

Section 31. (i) Inference and Judgment.

The judgment to be discussed in the following section is not the judgment of the court but the more general judgment which occurs in any perception. If we pursue our tasks earnestly we draw from the simplest cases innumerable inferences and we receive as many inferences from those we examine. The correctness of our work depends upon the truth of both. I have already indicated how very much of the daily life passes as simple and invincible sense−perception even into the determination of a sentence, although it is often no more than a very complicated series of inferences each of which may involve a mistake even if the perception itself has been correct. The frequency with which an inference is made from sense− perception is the more astonishing inasmuch as it exceeds all that the general and otherwise valid law of laziness permits. In fact, it contradicts that law, though perhaps it may not do so, for a hasty inference from insufficient premises may be much more comfortable than more careful observation and study. Such hasty inference is made even with regard to the most insignificant things. In the course of an investigation we discover that we have been dealing only with inferences and that our work therefore has been for nothing. Then again, we miss that fact, and our results are false and their falsehood is rarely sought in these petty mistakes. So the witness may have ``seen'' a watch in such and such a place when in reality he has only heard a noise that he took for the ticking of a watch and hence _*inferred_ that there had really been a watch, that he had <p 166> seen it, and finally _*believed_ that he had seen it. Another witness asserts that X has many chickens; as a matter of fact he has heard two chickens cluck and infers a large number. Still another has seen footprints of cattle and speaks of a herd, or he knows the exact time of a murder because at a given time he heard somebody sigh, etc. There would be little difficulty if people told us how they had inferred, for then a test by means of careful questions would be easy

enough−−but they do not tell, and when we examine ourselves we discover that we do exactly the same thing and often believe and assert that we have seen or heard or smelt or felt although we have only inferred these things.[1] Here belong all cases of correct or partly correct inference and of false inference from false sense perception. I recall the oft−cited story in which a whole judicial commission smelt a disgusting odor while a coffin was being exhumed only to discover that it was empty. If the coffin, for one reason or another, had not been opened all those present would have taken oath that they had an indubitable perception although the latter was only inferred from its precedent condition.

[1] Cf. H. Gross, Korrigierte Vorstellungen, in the Archiv, X, 109.

Exner[2] cites the excellent example in which a mother becomes frightened while her child cries, not because the cry as such sounds so terrible as because of its combination with the consciousness that it comes from her own child and that something might have happened to it. It is asserted, and I think rightly, that verbal associations have a considerable share in such cases. As Stricker[3] expresses it, the form of any conceptual complex whatever, brings out its appropriate word. If we see the _*thing_ watch, we get the _*word_ watch. If we see a man with a definite symptom of consumption the word tuberculosis occurs at once. The last example is rather more significant because when the whole complex appears mistakes are more remote than when merely one or another ``safe'' symptom permits the appearance of the word in question. What is safe to one mind need not be so to another, and the notion as to the certainty of any symptom changes with time and place and person. Mistakes are especially possible when people are so certain of their ``safe'' symptoms that they do not examine how they inferred from them. This inference, however, is directly related to the appearance of the word. Return to the example mentioned above, and suppose that A has discovered a ``safe'' symptom of consumption in B and the <p 167> word tuberculosis occurs to him. But the occurrence does not leave him with the word merely, there is a direct inference ``B has tuberculosis.'' We never begin anything with the word alone, we attach it immediately to some fact and in the present case it has become, as usual, a judgment. The thought−movement of him who has heard this judgment, however, turns backward and he supposes that the judge has had a long series of sense−perceptions from which he has derived his inference. And in fact he has had only one perception, the reliability of which is often questionable.

[2] S. Exner: Entwurf zu einer physiologisehen Erkl<a:>rung der psychischen Erscheinungen. Leipzig 1894.

[3] Studien <u:>ber die Assoziation der Vorstellungen. Vienna 1883.

Then there is the additional difficulty that in every inference there are leaps made by each inferer according to his character and training. And the maker does not consider whether the other fellow can make similar leaps or whether his route is different. E. g., when an English philosopher says, ``We really ought not to expect that the manufacture of woolens shall be perfected by a nation which knows no astronomy,''−−we are likely to say that the sentence is silly; another might say that it is paradoxical and a third that it is quite correct, for what is missing is merely the proposition that the grade of culture made possible by astronomy is such as to require textile proficiency also. ``In conversation the simplest case of skipping is where the conclusion is drawn directly from the minor premise. But many other inferences are omitted, as in the case of real thinking. In giving information there is review of the thinking of other people; women and untrained people do not do this, and hence the disconnectedness of their conversation.''[1] In this fact is the danger in examining witnesses, inasmuch as we involuntarily interpolate the missing details in the skipping inferences, but do it according to our own knowledge of the facts. Hence, a test of the correctness of the other man's inference becomes either quite impossible or is developed coarsely. In the careful observation of leaping inferences made by witnesses−−and not merely by women and the uneducated−−it will be seen that the inference one might oneself make might either have been different or have proceeded in a different way. If, then, all the premises are tested a different result from that of the witness is obtained. It is well known how identical premises permit of different conclusions by different people.

[1] von Hartmann: Philosophie des Unbewussten. Berlin 1869.

In such inferences certain remarkable things occur which, as a rule, have a given relation to the occupation of the witness. So, e. g., people inclined to mathematics make the greatest leaps, and though these may be comparatively and frequently correct, the <p 168> danger of mistake is not insignificant when the mathematician deals in his mathematical fashion with unmathematical things.

Another danger lies in the testimony of witnesses who have a certain sense of form in representation and whose inferential leaps consists in their omitting the detailed expression and in inserting the notion of form instead. I learned of this notable psychosis from a bookkeeper of a large factory, who had to provide for the test of numberless additions. It was his notion that if we were to add two and three are five, and six are eleven, and seven are eighteen we should never finish adding, and since the avoidance of mistakes requires such adding we must so contrive that the image of two and three shall immediately call forth the image of five. Now this mental image of five is added with the actual six and gives eleven, etc. According to this we do not add, we see only a series of images, and so rapidly that we can follow with a pencil but slowly. And the images are so certain that mistake is impossible. ``You know how 9 looks? Well, just as certainly we know what the image of 27 and 4 is like; the image of 31 occurs without change."

This, as it happens, is a procedure possible only to a limited type, but this type occurs not only among bookkeepers. When any one of such persons unites two events he does not consider what may result from such a union; he sees, if I may say so, only a resulting image. This image, however, is not so indubitably certain as in the case of numbers; and it may take all kinds of forms, the correctness of which is not altogether probable. E. g., the witness sees two forms in the dark and the flash of a knife and hears a cry. If he belongs to the type under discussion he does not consider that he might have been so frightened by the flashing knife as to have cried out, or that he had himself proceeded to attack with a stick and that the other fellow did the yelling, or that a stab or cut had preceded the cry−−no, he saw the image of the two forms and the knife and he heard the cry and these leap together into an image. i. e., one of the forms has a cut above his brow. And these leaps occur so swiftly and with such assurance that the witness in question often believes himself to have seen what he infers and swears to it.

There are a great many similar processes at the bottom of impressions that depend only upon swift and unconscious inference. Suppose, e. g., that I am shown the photograph of a small section of a garden, through which a team is passing. Although I observe the image of only a small portion of the garden and therefore have no notion of its extent, still, in speaking of it, I shall proba− <p 169> bly speak of a very big garden. I have inferred swiftly and unconsciously that in the fact that a wagon and horses were present in the pictured portion of the garden, is implied great width of road, for even gardens of average size do not have such wide roads as to admit wagons; the latter occurring only in parks and great gardens. Hence my conclusion: the garden must be very big. Such inferences[1] are frequent, whence the question as to the source and the probability of the witness's information, whether it is positive or only an impression. Evidently such an impression may be correct. It will be correct often, inasmuch as impressions occur only when inferences have been made and tested repeatedly. But it is necessary in any case to review the sequence of inferences which led to this impression and to examine their correctness. Unfortunately the witness is rarely aware whether he has perceived or merely inferred.

[1] Cf. Gross's Archiv, I, 93, II, 140, III, 250, VII, 155.

Examination is especially important when the impression has been made after the observation of a few marks or only a single one and not very essential one at that. In the example of the team the impression may have been attained by inference, but frequently it will have been attained through some unessential, purely personal, determinative characteristic. ``Just as the ancient guest recognizes his friend by fitting halves of the ring, so we recognize the object and its constitution from one single characteristic, and hence the whole vision of it is vivified by that characteristic."[2]

[2] H. Aubert: Physiologie der Netzhaut. Breslau 1865.

All this is very well if no mistakes are made. When Tertullian said, ``Credo quia impossibile est,'' we will allow honesty of statement to this great scholar, especially as he was speaking about matters of religion, but when Socrates said of the works of Heraclitus the Obscure: ``What I understand of it is good; I think that what I do not understand is also good''−−he was not in earnest. Now the case of many people who are not as wise as Tertullian and Socrates is identical with theirs. Numerous examinations of witnesses made me think of Tertullian's maxim, for the testimonies presented the most improbable things as facts. And when they even explained the most unintelligible things I thought: ``And what you do not understand is also good.''

This belief of uncultured people in their own intelligence has been most excellently portrayed by Wieland in his immortal ``Abderites.'' The fourth philosopher says: ``What you call the world <p 170> is essentially an infinite series of worlds which envelop one another like the skin of an onion.'' ``Very clear,'' said the Abderites, and thought they understood the philosopher because they knew perfectly well what an onion looked like. The inference which is drawn from the comprehension of one term in a comparison to the comprehension of the other is one of the most important reasons for the occurrence of so many misunderstandings. The example, as such, is understood, but its application to the assertion and the question whether the latter is also made clear by the example are forgotten. This explains the well known and supreme power of examples and comparisons, and hence the wise of all times have used comparisons in speaking to the poor in spirit. Hence, too, the great effect of comparisons, and also the numerous and coarse misunderstandings and the effort of the untrained and unintelligent to clarify those things they do not understand by means of comparisons. Fortunately they have, in trying to explain the thing to other people, the habit of making use of these difficultly discovered comparisons so that the others, if they are only sufficiently observant, may succeed in testing the correctness of the inference from one term in a comparison to the other. We do this frequently in examining witnesses, and we discover that the witness has made use of a figure to clarify some unintelligible point and that he necessarily understands it since it lies within the field of his instruments of thought. But what is compared remains as confused to him as before. The test of it, therefore, is very tiring and mainly without results, because one rarely succeeds in liberating a man from some figure discovered with difficulty. He always returns to it because he understands it, though really not what he compares. But what is gained in such a case is not little, for the certainty that, so revealed, the witness does not understand the matter in hand, easily determines the value of his testimony.

The fullness of the possibilities under which anything may be asserted is also of importance in this matter. The inference that a thing is impossible is generally made by most people in such wise that they first consider the details of the eventualities they already know, or immediately present. Then, when these are before them, they infer that the matter is quite impossible−−and whether one or more different eventualities have missed of consideration, is not studied at all. Our kindly professor of physics once told us: ``Today I intended to show you the beautiful experiments in the interference of light−−but it can not be observed in daylight and when <p 171> I draw the curtains you raise rough−house. The demonstration is therefore impossible and I take the instruments away.'' The good man did not consider the other eventuality, that we might be depended upon to behave decently even if the curtains were drawn.

Hence the rule that a witness's assertion that a thing is impossible must never be trusted. Take the simplest example. The witness assures us that it is impossible for a theft to have been committed by some stranger from outside. If you ask him why, he will probably tell you: ``Because the door was bolted and the windows barred.'' The eventuality that the thief might have entered by way of the chimney, or have sent a child between the bars of the window, or have made use of some peculiar instrument, etc., are not considered, and would not be if the question concerning the ground of the inference had not been put.

We must especially remember that we criminalists ``must not dally with mathematical truth but must seek historical truth. We start with a mass of details, unite them, and succeed by means of this union and test in attaining a result which permits us to judge concerning the existence and the characteristics of past events.'' The material of our work lies in the mass of details, and the manner and reliability of its presentation determines the certainty of our inferences.

Seen more closely the winning of this material may be described as Hume describes it:[1] ``If we would satisfy ourselves, therefore, concerning the nature of that evidence which assures us of matters of fact, we must inquire how we arrive at the knowledge of cause and effect. I shall venture to affirm as a general proposition which admits of no exception, that the knowledge of this relation is not, in any instance, attained by reasonings a priori; but arises entirely from experience, when we find that any particular objects are constantly conjoined with each other; . . . nor can our reason, unassisted by experience, ever draw any inference concerning real existence and matter of fact."

[1] David Hume: Enquiry, p. 33 (Open Court Ed.).

In the course of his explanation Hume presents two propositions,

(1) I have found that such an object has always been attended with such an effect.

(2) I foresee that other objects which are in appearance similar, will be attended with similar effects.

He goes on: ``I shall allow, if you please, that the one proposition may justly be inferred from the other; I know in fact that it always <p 172> is inferred. But if you insist that the inference is made by a chain of reasoning, I desire you to produce that chain of reasoning. The connection between these propositions is not intuitive. There is required a medium which may enable the mind to draw such an inference, if, indeed, it be drawn by reasoning and argument. What the medium is, I must confess, passes my comprehension; and it is incumbent on those to produce it who assert that it exists, and is the origin of all our conclusions concerning matters of fact."

If we regard the matter more closely we may say with certainty: This medium exists not as a substance but as a transition. When I speak in the proposition of ``such an object," I already have ``similar" in mind, inasmuch as there is nothing absolutely like anything else, and when I say in the first proposition, ``such an object," I have already passed into the assertion made in the second proposition.

Suppose that we take these propositions concretely:

(1) I have discovered that bread made of corn has a nourishing effect.

(2) I foresee that other apparently similar objects, e. g., wheat, will have a like effect.

I could not make various experiments with the same corn in case (1). I could handle corn taken as such from one point of view, or considered as such from another, i. e., I could only experiment with very similar objects. I can therefore make these experiments with corn from progressively remoter starting points, or soils, and finally with corn from Barbary and East Africa, so that there can no longer be any question of identity but only of similarity. And finally I can compare two harvests of corn which have less similarity than certain species of corn and certain species of wheat. I am therefore entitled to speak of identical or similar in the first proposition as much as in the second. One proposition has led into another and the connection between them has been discovered.

The criminological importance of this ``connection" lies in the fact that the correctness of our inferences depends upon its discovery. We work continuously with these two Humian propositions, and we always make our assertion, first, that some things are related as cause and effect, and we join the present case to that because we consider it similar. If it is really similar, and the connection of the first and the second proposition are actually correct, the truth of the inference is attained. We need not count the unexplained wonders of numerical relations in the result. D'Alembert <p 173> asserts: ``It seems as if there were some law of nature which more frequently prevents the occurrence of regular than irregular combinations; those of the first kind are mathematically, but not physically, more probable. When we see that high numbers are thrown with some

one die, we are immediately inclined to call that die false." And John Stuart Mill adds, that d'Alembert should have set the problem in the form of asking whether he would believe in the die if, after having examined it and found it right, somebody announced that ten sixes had been cast with it.

We may go still further and assert that we are generally inclined to consider an inference wrong which indicates that accidental matters have occurred in regular numerical relation. Who believes the hunter's story that he has shot 100 hares in the past week, or the gambler's that he has won 1000 dollars; or the sick man's, that he was sick ten times? It will be supposed at the very least that each is merely indicating an approximately round sum. Ninety−six hares, 987 dollars, and eleven illnesses will sound more probable. And this goes so far that during examinations, witnesses are shy of naming such ``improbable ratios," if they at all care to have their testimony believed. Then again, many judges are in no wise slow to jump at such a number and to demand an ``accurate statement," or eves immediately to decide that the witness is talking only ``about." How deep−rooted such views are is indicated by the circumstance that bankers and other merchants of lottery tickets find that tickets with ``pretty numbers" are difficult to sell. A ticket of series 1000, number 100 is altogether unsalable, for such a number ``can not possibly be sold." Then again, if one has to count up a column of accidental figures and the sum is 1000, the correctness of the sum is always doubted.

Here are facts which are indubitable and unexplained. We must therefore agree neither to distrust so−called round numbers, nor to place particular reliance on quite irregular figures. Both should be examined.

It may be that the judgment of the correctness of an inference is made analogously to that of numbers and that the latter exercise an influence on the judgment which is as much conceded popularly as it is actually combated. Since Kant, it has been quite discovered that the judgment that fools are in the majority must lead through many more such truths in judging−−and it is indifferent whether the judgment dealt with is that of the law court or of a voting legislature or mere judgments as such. <p 174>

Schiel says, ``It has been frequently asserted that a judgment is more probably correct according to the number of judges and jury. Quite apart from the fact that the judge is less careful, makes less effort, and feels less responsibility when he has associates, this is a false inference from an enormous average of cases which are necessarily remote from any average whatever. And when certain prejudices or weaknesses of mind are added, the mistake multiplies. Whoever accurately follows, if he can avoid getting bored, the voting of bodies, and considers by themselves individual opinions about the subject, they having remained individual against large majorities and hence worthy of being subjected to a cold and unprejudiced examination, will learn some rare facts. It is especially interesting to study the judgment of the full bench with regard to a case which has been falsely judged; surprisingly often only a single individual voice has spoken correctly. This fact is a warning to the judge in such cases carefully to listen to the individual opinion and to consider that it is very likely to deserve study just because it is so significantly in the minority.

The same thing is to be kept in mind when a thing is asserted by a large number of witnesses. Apart from the fact that they depend upon one another, that they suggest to one another, it is also easily possible, especially if any source of error is present, that the latter shall have influenced all the witnesses.

Whether a judgment has been made by a single judge or is the verdict of any number of jurymen is quite indifferent since the correctness of a judgment does not lie in numbers. Exner says, ``The degree of probability of a judgment's correctness depends upon the richness of the field of the associations brought to bear in establishing it. The value of knowledge is judicially constituted in this fact, for it is in essence the expansion of the scope of association. And the value is proportional to the richness of the associations between the present fact and the knowledge required." This is one of the most important of the doctrines we have to keep in mind, and it controverts altogether those who suppose that we ought to be satisfied with the knowledge of some dozens of statutes, a few commentaries, and so and so many precedents.

If we add that ``every judgment is an identification and that in every judgment we assert that the content

represented is identical in spite of two different associative relationships,"[1] it must become clear what dangers we undergo if the associative relationships of <p 175> a judge are too poor and narrow. As Mittermaier said seventy years ago: ``There are enough cases in which the weight of the evidence is so great that all judges are convinced of the truth in the same way. But in itself what determines the judgment is the essential character of him who makes it." What he means by essential character has already been indicated.

[1] H. M<u:>nsterberg: Beitr<a:>ge zur experimentellen Psychologie, III. Freiburg.

We have yet to consider the question of the value of inferences made by a witness from his own combinations of facts, or his descriptions. The necessity, in such cases, of redoubled and numerous examinations is often overlooked. Suppose, for example, that the witness does not know a certain important date, but by combining what he does know, infers it to have been the second of June, on which day the event under discussion took place. He makes the inference because at the time he had a call from A, who was in the habit of coming on Wednesdays, but there could be no Wednesday after June seventh because the witness had gone on a long journey on that day, and it could not have been May 26 because this day preceded a holiday and the shop was open late, a thing not done on the day A called. Nor, moreover, could the date have been May 20, because it was very warm on the day in question, and the temperature began to rise only after May 20. In view of these facts the event under discussion must have occurred upon June 2nd and only on that day.

As a rule, such combinations are very influential because they appear cautious, wise and convincing. They impose upon people without inclination toward such processes. More so than they have a right to, inasmuch as they present little difficulty to anybody who is accustomed to them and to whom they occur almost spontaneously. As usually a thing that makes a great impression upon us is not especially examined, but is accepted as astounding and indubitable, so here. But how very necessary it is carefully to examine such things and to consider whether the single premises are sound, the example in question or any other example will show. The individual dates, the facts and assumptions may easily be mistaken, and the smallest oversight may render the result false, or at least not convincing.

The examination of manuscripts is still more difficult. What is written has a certain convincing power, not only on others but on the writer, and much as we may be willing to doubt and to improve what has been written immediately or at most a short time ago, a manuscript of some age has always a kind of authority and we <p 176> give it correctness cheaply when that is in question. In any event there regularly arises in such a case the problem whether the written description is quite correct, and as regularly the answer is a convinced affirmative. It is impossible to give any general rule for testing such affirmation. Ordinarily some clearness may be attained by paying attention to the purpose of the manuscript, especially in order to ascertain its sources and the personality of the writer. There is much in the external form of the manuscript. Not that especial care and order in the notes are particularly significant; I once published the accounts of an old peasant who could neither read nor write, and his accounts with a neighbor were done in untrained but very clear fashion, and were accepted as indubitable in a civil case. The purposiveness, order, and continuity of a manuscript indicate that it was not written after the event; and are therefore, together with the reason for having written it and obviously with the personality of the writer, determinative of its value.

Section 32. (j) Mistaken Inferences.

It is true, as Huxley says, that human beings would have made fewer mistakes if they had kept in mind their tendency to false judgments which depend upon extraordinary combinations of real experiences. When people say: I felt, I heard, I saw this or that, in 99 cases out of 100 they mean only that they have been aware of some kind of sensation the nature of which they determine in a _*judgment_. Most erroneous inferences ensue in this fashion. They are rarely formal and rarely arise by virtue of a failure to use logical principles; their ground is the inner paucity of a premise, which itself is erroneous because of an erroneous perception or conception.[1] As Mill rightly points out, a large portion of mankind make mistakes because of tacit assumptions that the order of nature and the order of knowledge are identical and that things must exist as

they are thought, so that when two things can not be thought together they are supposed not to exist together, and the inconceivable is supposed to be identical with the non−existent. But what they do not succeed in conceiving must not be confused with the absolutely inconceivable. The difficulty or impossibility of conceiving may be subjective and conditional, and may prevent us from understanding the relation of a series of events only because some otherwise proxi− <p 177> mate condition is unknown or overlooked. Very often in criminal cases when I can make no progress in some otherwise simple matter, I recall the well known story of an old peasant woman who saw the tail of a horse through an open stable door and the head of another through another door several yards away, and because the colors of both head and tail were similar, was moved to cry out: ``Dear Lord, what a long horse!" The old lady started with the presupposition that the rump and the head of the two horses belonged to one, and could make no use of the obvious solution of the problem of the inconceivably long horse by breaking it in two.

[1] Cf. O. Gross: Soziale Hemmungsvorstellungen. II Gross's Archiv: VII, 123.

Such mistakes may be classified under five heads.[1]

[1] A paragraph is here omitted. Translator.

(1) Aprioristic mistakes. (Natural prejudices).

(2) Mistakes in observation.

(3) Mistakes in generalization. (When the facts are right and the inferences wrong).

(4) Mistakes of confusion. (Ambiguity of terms or mistakes by association).

(5) Logical fallacies.

All five fallacies play important r<o^>les in the lawyer's work.

We have very frequently to fight natural prejudices. We take certain classes of people to be better and others to be worse than the average, and without clearly expressing it we expect that the first class will not easily do evil nor the other good. We have prejudices about some one or another view of life; some definition of justice, or point of view, although we have sufficient opportunity to be convinced of their incorrectness. We have a similar prejudice in trusting our human knowledge, judgment of impressions, facts, etc., far too much, so far indeed, that certain relations and accidents occurring to any person we like or dislike will determine his advantage or disadvantage at our hands.

Of importance under this heading, too, are those inferences which are made in spite of the knowledge that the case is different; the power of sense is more vigorous than that of reflection. As Hartmann expresses it: ``The prejudices arising from sensation, are not conscious judgments of the understanding but instinctively practical postulates, and are, therefore, very difficult to destroy, or even set aside by means of conscious consideration. You may tell yourself a thousand times that the moon at the horizon is as big as at the zenith−−nevertheless you see it smaller at the zenith." Such fixed <p 178> impressions we meet in every criminal trial, and if once we have considered how the criminal had committed a crime we no longer get free of the impression, even when we have discovered quite certainly that he had no share in the deed. The second type of fallacy−−mistakes in observation−−will be discussed later under sense perception and similar matters.

Under mistakes of generalization the most important processes are those of arrangement, where the environment or accompanying circumstances exercise so determinative an influence that the inference is often made from them alone and without examination of the object in question. The Tanagra in the house of an art−connoisseur I take to be genuine without further examination; the golden watch in the pocket of a tramp to

be stolen; a giant meteor, the skeleton of an iguana, a twisted−looking Nerva in the Royal Museum of Berlin, I take to be indubitably original, and indubitably imitations in the college museum of a small town. The same is true of events: I hear a child screeching in the house of the surly wife of the shoemaker so I do not doubt that she is spanking it; in the mountains I infer from certain whistles the presence of chamois, and a single long drawn tone that might be due to anything I declare to have come from an organ, if a church is near by.

All such processes are founded upon experience, synthesis, and, if you like, prejudices. They will often lead to proper conclusions, but in many cases they will have the opposite effect. It is a frequently recurring fact that in such cases careful examination is most of all necessary, because people are so much inclined to depend upon ``the first, always indubitably true impression." The understanding has generalized simply and hastily, without seeking for justification.

The only way of avoiding great damage is to extract the fact in itself from its environment and accompanying circumstance, and to study it without them. The environment is only a means of proof, but no proof, and only when the object or event has been validated in itself may we adduce one means of proof after another and modify our point of view accordingly. Not to do so, means always to land upon false inferences, and what is worse, to find it impossible upon the recognition of an error later on, to discover at what point it has occurred. By that time it has been buried too deep in the heap of our inferential system to be discoverable.

The error of confusion Mill reduces especially to the unclear <p 179> representation of _*what_ proof is, i. e., to the ambiguity of words. We rarely meet such cases, but when we do, they occur after we have compounded concepts and have united rather carelessly some symbol with an object or an event which ought not to have been united, simply because we were mistaken about its importance. A warning example may be found in the inference which is made from the sentence given a criminal because of ``identical motive." The Petitio, the Ignorantia, etc., belong to this class. The purely logical mistakes or mistakes of syllogism do not enter into these considerations.

Section 33. (k) Statistics of the Moral Situation.

Upon the first glance it might be asserted that statistics and psychology have nothing to do with each other. If, however, it is observed that the extraordinary and inexplicable results presented by statistics of morals and general statistics influence our thought and reflection unconditionally, its importance for criminal psychology can not be denied. Responsibility, abundance of criminals, their distribution according to time, place, personality, and circumstances, the regularity of their appearance, all these have so profound an influence upon us both essentially and circumstantially that even our judgments and resolutions, no less than the conduct and thought of other people whom we judge, are certainly altered by them.[1] Moreover, probability and statistics are in such close and inseparable connection that we may not make use of or interpret the one without the other. Eminent psychological contributions by M<u:>nsterberg show the importance the statistical problems have for psychology. This writer warns us against the over−valuation of the results of the statistics of morality, and believes that its proper tendencies will be discovered only much later. In any event the real value of statistical synthesis and deduction can be discovered only when it is closely studied. This is particularly true with regard to criminal conditions. The works of many authors[2] teach us things that would not otherwise be learned, and they would not be dealt with here if only a systematic study of the works themselves could be of use. We speak here only of their importance for our own discipline. Nobody doubts that there are mysteries in the figures and figuring of statistics. We admit honestly that we know no <p 180> more to−day than when Paul de Decker discussed Quetelet's labors in statistics of morality in the Brussels Academy of Science, and confessed what a puzzle it was that human conduct, even in its smallest manifestations, obeyed in their totality constant and immutable laws. Concerning this curious fact Adolf Wagner says: ``If a traveler had told us something about some people where a statute determines exactly how many persons per year shall marry, die, commit suicide, and crimes within certain classes,−−and if he had announced furthermore that these laws were altogether obeyed, what should we have said? And as a matter of fact the laws are obeyed all the world over."[1]

[1] O. Gross: Zur Phyllogenese der Ethik. H. Gross's Archiv, IX, 100. [2] Cf. B. F<:>oldes: Einuge Ergebnisse der neueren Kriminalstatistik. Zeitschrift f. d. yes. Strafrechte−Wissenschaft, XI. 1891. [1] N<a:>cke: Moralische Werte. Archiv, IX, 213

Of course the statistics of morality deal with quantities not qualities, but in the course of statistical examination the latter are met with. So, e. g., examinations into the relation of crime to school− attendance and education, into the classes that show most suicides, etc., connect human qualities with statistical data. The time is certainly not far off when we shall seek for the proper view of the probability of a certain assumption with regard to some rare crime, doubtful suicide, extraordinary psychic phenomena, etc., with the help of a statistical table. This possibility is made clearer when the inconceivable constancy of some figures is considered. Suppose we study the number of suicides since 1819 in Austria, in periods of eight years. We find the following figures, 3000, 5000, 6000, 7000, 9000, 12000, 15000−−i. e., a regular increase which is comparable to law.[2] Or suppose we consider the number of women, who, in the course of ten continuous years in France, shot themselves; we find 6, 6, 7, 7, 6, 6, 7; there is merely an alternation between 6 and 7. Should not we look up if in some one year eight or nine appeared? Should not we give some consideration to the possibility that the suicide is only a pretended one? Or suppose we consider the number of men who have drowned themselves within the same time: 280, 285, 292, 276, 257, 269, 258, 276, 278, 287,−−Wagner says rightly of such figures ``that they contain the arithmetical relation of the mechanism belonging to a moral order which ought to call out even greater astonishment than the mechanism of stellar systems."

[2] J. Gurnhill: The Morals of Suicide. London 1900.

Still more remarkable are the figures when they are so brought together that they may be seen as a curve. It is in this way that Drobisch brings together a table which distributes crime according <p 181> to age. Out of a thousand crimes committed by persons between the ages of:

	AGAINST PROPERTY	AGAINST PERSONS
Less than 16 years	2	0.53
16−21	105	28
21−25	114	50
25−30	101	48
30 35	93	41
35−40	78	31
40−45	63	25
45−50	48	19
50−55	34	15
55−60	24	12
60 65	19	11
65−70	14	8
70−80	8	5
More than 80	2	2

Through both columns a definite curve may be drawn which grows steadily and drops steadily. Greater mathematical certainty is almost unthinkable. Of similar great importance is the parallelization of the most important conditions. When, e. g., suicides in France, from 1826 to 1870 are taken in series of five years we find the figures 1739, 2263, 2574, 2951, 8446, 3639, 4002, 4661, 5147; if now during that period the population has increased from 30 to only 36 millions other determining factors have to be sought.[1]

[1] N<a:>cke in Archiv VI, 325, XIV, 366.

Again, most authorities as quoted by Gutberlet,[2] indicate that most suicides are committed in June, fewest in December; most at night, especially at dawn, fewest at noon, especially between twelve and two o'clock. The greatest frequency is among the half−educated, the age between sixty and seventy, and the nationality Saxon (Oettingen).

[2] K. Gutberlet: Die Willensfreiheit u. ihre Gegner. Fulda 1893.

The combination of such observations leads to the indubitable conclusion that the results are sufficiently constant to permit making at least an assumption with regard to the cases in hand. At present, statistics say little of benefit with regard to the individual; J. S. Mill is right in holding that the death−rate will help insurance companies but will tell any individual little concerning the duration of his life. According to Adolf Wagner, the principal statistical rule is: The law has validity when dealing with great numbers; the <p 182> constant regularity is perceivable only when cases are very numerous; single cases show many a variation and exception. Quetelet has shown the truth of this in his example of the circle. ``If you draw a circle on the blackboard with thick chalk, and study its outline closely in small sections, you will find the coarsest irregularities; but if you step far back and study the circle as a whole, its regular, perfect form becomes quite distinct." But the circle must be drawn carefully and correctly, and one must not give way to sentimentality and tears when running over a fly's legs in drawing. Emil du Bois−Reymond[1] says against this: ``When the postmaster announces that out of 100,000 letters a year, exactly so and so many come unaddressed, we think nothing of the matter−−but when Quetelet counts so and so many criminals to every 100,000 people our moral sense is aroused since it is painful to think that _*we_ are not criminals simply because somebody else has drawn the black spot." But really there is as little regrettable in this fact as in the observation that every year so and so many men break their legs, and so and so many die−−in those cases also, a large number of people have the good fortune not to have broken their legs nor to have died. We have here the irrefutable logic of facts which reveals nothing vexatious.

[1] Die sieben Weltr<a:>tsel. Leipzig 1882.

On the other hand, there is no doubt that our criminal statistics, to be useful, must be handled in a rather different fashion. We saw, in studying the statistics of suicide, that inferences with regard to individual cases could be drawn only when the material had been studied carefully and examined on all sides. But our criminological statistic is rarely examined with such thoroughness; the tenor of such examination is far too bureaucratic and determined by the statutes and the process of law. The criminalist gives the statistician the figures but the latter can derive no significant principles from them. Consider for once any official report on the annual results in the criminal courts in any country. Under and over the thousands and thousands of figures and rows of figures there is a great mass of very difficult work which has been profitable only in a very small degree. I have before me the four reports of a single year which deal with the activities of the Austrian courts and criminal institutions, and which are excellent in their completeness, correctness, and thorough revision. Open the most important,−−the results of the administration of criminal law in the various departments of the country,−−and you find everything recorded:−−how many <p 183> were punished here and how many there, what their crimes were, the percentage of condemned according to age, social standing, religion, occupation, wealth, etc.; then again you see endless tables of arrests, sentences, etc., etc. Now the value of all this is to indicate merely whether a certain regularity is discoverable in the procedure of the officials. Material psychologically valuable is rare. There is some energetic approximation to it in the

consideration of culture, wealth, and previous sentences, but even these are dealt with most generally, while the basis and motive of the death−sentence is barely indicated. We can perceive little consideration of motives with regard to education, earlier life, etc., in their relation to sentencing. Only when statistics will be made to deal actually and in every direction with qualities and not merely with quantities will they begin to have a really scientific value.

Topic II. KNOWLEDGE. Section 34.

Criminal law, like all other disciplines, must ask under what conditions and when we are entitled to say ``we know." The answer is far from being perennially identical, though it might have been expected that the conviction of knowledge would be ever united with identical conditions. The strange and significant difference is determined by the question whether the verdict, ``we know," will or will not have practical consequences. When we discuss some question like the place of a certain battle, the temperature of the moon, or the appearance of a certain animal in the Pliocene, we first assume that there _*is_ a true answer; reasons for and against will appear, the former increase in number, and suddenly we discover in some book the assurance that, ``We know the fact." That assurance passes into so and so many other books; and if it is untrue, no essential harm can be done.

But when science is trying to determine the quality of some substance, the therapeutic efficiency of some poison, the possibilities of some medium of communication, the applicability of some great national economic principle like free trade, then it takes much more time to announce, ``We know that this is so and not otherwise." In this case one sees clearly that tremendous consequences follow on the practical interpretation of ``we know," and therefore there is in these cases quite a different taxation of knowledge from that in cases where the practical consequences are comparatively negligible. <p 184>

Our work is obviously one of concrete practical consequences. It contains, moreover, conditions that make imperfect knowledge equivalent to complete ignorance, for in delivering sentence every ``no" may each time mean, ``We know that he has not done it" or again, ``We know that it is not altogether certain that he has done it." Our knowledge in such cases is limited to the recognition of the confusion of the subject, and knowledge in its widest sense is the consciousness of some definite content; in this case, confusion. Here, as everywhere, knowledge is not identical with truth; knowledge is only subjective truth. Whoever knows, has reasons for considering things true and none against so considering them. Here, he is entitled to assume that all who recognize his knowledge will justify it. But, when even everybody justifies his knowledge, it can be justified only in its immediacy; to−morrow the whole affair may look different. For this reason we criminalists assert much less than other investigators that we seek the truth; if we presume to such an assertion, we should not have the institutions of equity, revision, and, in criminal procedure, retrial. Our knowledge, when named modestly, is only the innermost conviction that some matter is so and so according to human capacity, and ``such and such a condition of things." Parenthetically, we agree that ``such and such a condition of things" may alter with every instant and we declare ourselves ready to study the matter anew if the conditions change. We demand material, but relative truth.

One of the acutest thinkers, J. R. von Mayer, the discoverer of the working principle of ``conservation of energy," says, ``the most important, if not the only rule for real natural science is this: Always to believe that it is our task to know the phenomena before we seek explanation of higher causes. If a fact is once known in all its aspects, it is thereby explained and the duty of science fulfilled." The author did not have us dry−souled lawyers in mind when he made this assertion, but we who modestly seek to subordinate our discipline to that of the correct one of natural science, must take this doctrine absolutely to heart. Every crime we study is a fact, and once we know it in all its aspects and have accounted for every little detail, we have explained it and have done our duty.

But the word explain does not lead us very far. It is mainly a matter of reducing the mass of the inexplicable to a minimum and the whole to its simplest terms. If only we succeed in this reduction! In most cases we

substitute for one well−known term, not <p 185> another still better one, but a strange one which may mean different things to different people. So again, we explain one event by means of another more difficult one. It is unfortunate that we lawyers are more than all others inclined to make unnecessary explanations, because our criminal law has accustomed us to silly definitions which rarely bring us closer to the issue and which supply us only with a lot of words difficult to understand instead of easily comprehensible ones. Hence we reach explanations both impossible and hard to make, explanations which we ourselves are often unwilling to believe. And again we try to explain and to define events which otherwise would have been understood by everybody and which become doubtful and uncertain because of the attempt. The matter becomes especially difficult when we feel ourselves unsure, or when we have discovered or expect contradiction. Then we try to convince ourselves that we know something, although at the beginning we were clearly enough aware that we knew nothing. We must not forget that our knowledge can attain only to ideas of things. It consists alone in the perception of the relation and agreement, or in the incompatibility and contradiction of some of our ideas. Our task lies exactly in the explication of these impressions, and the more thoroughly that is done the greater and more certain is the result. But we must never trust our own impressions merely. ``When the theologian, who deals with the supersensible, has said all that, from his point of view, he can say, when the jurist, who represents those fundamental laws which are the result of social experience, has considered all reasons from his own point of view, the final authority in certain cases must be the physician who is engaged in studying the life of the body."

I get this from Maudsley,[1] and it leads us to keep in mind that our knowledge is very one−sided and limited, and that an event is known only when all have spoken who possess especial knowledge of its type. Hence, every criminalist is required to found his knowledge upon that of the largest possible number of experts and not to judge or discuss any matter which requires especial information without having first consulted an expert with regard to it. Only the sham knows everything; the trained man understands how little the mind of any individual may grasp, and how many must co<o:>perate in order to explain the very simplest things.

[1] Henry Maudsley: Physiology and Pathology of the Mind.

The complexity of the matter lies in the essence of the concept <p 186> ``to be." We use the word ``to be" to indicate the intent of all perceived and perceivable. `` `To be' and `to know' are identical in so far as they have identical content, and the content may be known?"[1]

[1] Jessen: Versuch einer wissenschaftlichen Begr<u:>ndung der Psychologie. Berlin 1855.

PART II.

OBJECTIVE CONDITIONS OF CRIMINAL INVESTIGATION: THE MENTAL ACTIVITY OF THE EXAMINEE.

TITLE A. GENERAL CONDITIONS.

Topic I. OF SENSE−PERCEPTION.

Section 35.

Our conclusions depend upon perceptions made by ourselves and others. And if the perceptions are good our judgments _*may_ be good, if they are bad our judgments _*must_ be bad. Hence, to study the forms of sense−perception is to study the fundamental conditions of the administration of law, and the greater the attention thereto, the more certain is the administration.

It is not our intention to develop a theory of perception. We have only to extract those conditions which concern important circumstances, criminologically considered, and from which we may see how we and those we examine, perceive matters. A thorough and comprehensive study of this question can not be too much recommended. Recent science has made much progress in this direction, and has discovered much of great importance for us. To ignore this is to confine oneself merely to the superficial and external, and hence to the inconceivable and incomprehensible, to ignoring valuable material for superficial reasons, and what is worse, to identifying material as important which properly understood has no value whatever.

Section 36. (a) General Considerations.

The criminalist studies the physiological psychology[1] of the senses and their functions, in order to ascertain their nature, their influence upon images and concepts, their trustworthiness, their reliability and its conditions, and the relation of perception to the object. The question applies equally to the judge, the jury, the witness, and the accused. Once the essence of the function and relation of sense−perception is understood, its application in individual cases becomes easy.

[1] For a general consideration of perception see James, Principles of Psychology. Angell, Psychology.

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The importance of sense−perception need not be demonstrated. ``If we ask," says Mittermaier, ``for the reason of our conviction of the truth of facts even in very important matters, and the basis of every judgment concerning existence of facts, we find that the evidence of the senses is final and seems, therefore, the only true source of certainty."

There has always, of course, been a quarrel as to the objectivity and reliability of sense−perception. That the senses do not lie, ``not because they are always correct, but because they do not judge," is a frequently quoted sentence of Kant's; the Cyrenaics have already suggested this in asserting that pleasure and pain alone are indubitable. Aristotle narrows the veracity of sensation to its essential content, as does Epicurus. Descartes, Locke and Leibnitz have suggested that no image may be called, as mere change of feeling, true or false. Sensationalism in the work of Gassendi, Condillac, and Helvetius undertook for this reason the defense of the senses against the reproach of deceit, and as a rule did it by invoking the infallibility of the sense of touch against the reproach of the contradictions in the other senses. Reid went back to Aristotle in distinguishing specific objects for each sense and in assuming the truth of each sense within its own field.

That these various theories can be adjusted is doubtful, even if, from a more conservative point of view, the subject may be treated quantitatively. The modern quantification of psychology was begun by Herbart, who developed a mathematical system of psychology by introducing certain completely unempirical postulates concerning the nature of representation and by applying certain simple premises in all deductions concerning numerical extent. Then came Fechner, who assumed the summation of stimuli. And finally these views were determined and fixed by the much−discussed Weber's Law, according to which the intensity of the stimulus must increase in the proportion that the intensity of the sensation is to increase; i. e., if a stimulus of 20 units requires the addition of 3 before it can be perceived, a stimulus of 60 units would require the addition of 9. This law, which is of immense importance to criminalists who are discussing the sense−perceptions of witnesses, has been thoroughly and conclusively dealt with by A. Meinong.[1]

[1] Meinong: <U:>ber die Bedeutung der Weberschen Gesetzes. Hamburg and Leipzig, 1896.

``Modern psychology takes qualities perceived externally to be in themselves subjective but capable of receiving objectivity through <p 189> our relation to the outer world.... The qualitative character of our sensory content produced by external stimuli depends primarily on the organization of our senses. This is the fundamental law of perception, of modern psychology, variously expressed, but axiomatic in all physiological

psychology."[1] In this direction Helmholtz[2] has done pioneer work. He treats particularly the problem of optics, and physiological optics is the study of perception by means of the sense of sight. We see things in the external world through the medium of light which they direct upon our eyes. The light strikes the retina, and causes a sensation. The sensation brought to the brain by means of the optic nerve becomes the condition of the representation in consciousness of certain objects distributed in space.... We make use of the sensation which the light stimulates in the mechanism of the optic nerve to construct representations concerning the existence, form, and condition of external objects. Hence we call images perceptions of sight. (Our sense−perception, according to this theory, consists, therefore, entirely of sensations; the latter constitute the stuff or the content from which the other is constructed). Our sensations are effects caused in our organs, externally, and the manifestation of such an effect depends essentially upon the nature of the apparatus which has been stimulated.

[1] T. Pesch Das Weltph<a:>nomen

[2] H. Helmholtz: Die Tatsachen der Wahrnehmung. Braunsehweig 1878.

There are certain really known inferences, e. g., those made by the astronomer from the perspective pictures of the stars to their positions in space. These inferences are founded upon well− studied knowledge of the principles of optics. Such knowledge of optics is lacking in the ordinary function of seeing; nevertheless it is permissible to conceive the psychical function of ordinary perception as unconscious inferences, inasmuch as this name will completely distinguish them from the commonly so−called conscious inferences.

The last−named condition is of especial importance to us. We need investigation to determine the laws of the influence of optical and acoustical knowledge upon perception. That these laws are influential may be verified easily. Whoever is ignorant, e. g., that a noise is reflected back considerably, will say that a wagon is turning from the side from which the noise comes, though if he knows the law, if he knows that fact, his answer would be reversed. So, as every child knows that the reflection of sound is frequently deceptive, everybody who is asked in court will say that he believes the wagon <p 190> to be on the right side though it might as well have been on the left. Again, if we were unaware that light is otherwise refracted in water than in air we could say that a stick in the water has been bent obtusely, but inasmuch as everybody knows this fact of the relation of light to water, he will declare that the stick appears bent but really is straight.

From these simplest of sense−perceptions to the most complicated, known only to half a dozen foremost physicists, there is an infinite series of laws controlling each stage of perception, and for each stage there is a group of men who know just so much and no more. We have, therefore, to assume that their perceptions will vary with the number and manner of their accomplishments, and we may almost convince ourselves that each examinee who has to give evidence concerning his sense−perception should literally undergo examination to make clear his scholarly status and thereby the value of his testimony. Of course, in practice this is not required. First of all we judge approximately a man's nature and nurture and according to the impression he makes upon us, thence, his intellectual status. This causes great mistakes. But, on the other hand, the testimony is concerned almost always with one or several physical events, so that a simple relational interrogation will establish certainly whether the witness knows and attends to the physical law in question or not. But anyway, too little is done to determine the means a man uses to reach a certain perception. If instantaneous contradictions appear, there is little damage, for in the absence of anything certain, further inferences are fortunately made in rare cases only. But when the observation is that of one person alone, or even when more testify but have accidentally the same amount of knowledge and hence have made the same mistake, and no contradiction appears, we suppose ourselves to possess the precise truth, confirmed by several witnesses, and we argue merrily on the basis of it. In the meantime we quite forget that contradictions are our salvation from the trusting acceptance of untruth−− and that the absence of contradiction means, as a rule, the absence of a starting point for further examination.

For this reason and others modern psychology requires us to be cautious. Among the others is the

circumstance that perceptions are rarely pure. Their purity consists in containing nothing else than perception; they are mixed when they are connected with imaginations, judgments, efforts, and volitions. How rarely a perception is pure I have already tried to show; judgments almost <p 191> always accompany it. I repeat too, that owing to this circumstance and our ignorance of it, countless testimonies are interpreted altogether falsely. This is true in many other fields. When, for example, A. Fick says: ``The condition we call sensation occurs in the consciousness of the subject when his sensory nerves are stimulated," he does not mean that the nervous stimulus in itself is capable of causing the condition in question. This one stimulus is only a single tone in the murmur of countless stimuli, which earlier and at the same time have influenced us and are different in their effect on each man. Therefore, that single additional tone will also be different in each man. Or, when Bernstein says that ``Sensation, i. e., the stimulation of the sensorium and the passage of this stimulation to the brain, does not in itself imply the perception of an object or an event in the external world," we gather that the objectivity of the perception works correctively not more than one time out of many. So here again everything depends upon the nature and nurture of the subject.

Sensations are, according to Aubert, still more subjective. ``They are the specific activity of the sense organs, (not, therefore, passive as according to Helmholtz, but active functions of the sense organs). Perception arises when we combine our particular sensations with the pure images of the spirit or the schemata of the understanding, especially with the pure image of space. The so−called ejection or externalization of sensations occurs only as their scheme and relation to the unity of their object."

So long as anything is conceived as passive it may always recur more identically than when it is conceived as active. In the latter case the individuality of the particular person makes the perception in a still greater degree individual, and makes it almost the creature of him who perceives. Whether Aubert is right or not is not our task to discover, but if he is right then sense−perception is as various as is humanity. The variety is still further increased by means of the comprehensive activity which Fischer[1] presupposes. ``Visual perception has a comprehensive or compounding activity. We never see any absolute simple and hence do not perceive the elements of things. We see merely a spatial continuum, and that is possible only through comprehensive activity−−especially in the case of movement in which the object of movement and the environment must both be perceived." But each individual method of ``comprehension" is different. And it is uncertain whether this <p 192> is purely physical, whether only the memory assists (so that the attention in biased by what has been last perceived), whether imagination is at work or an especial psychical activity must be presupposed in compounding the larger elements. The fact is that men may perceived an enormous variety of things with a single glance. And generally the perceptive power will vary with the skill of the individual. The narrowest, smallest, most particularizing glance is that of the most foolish; and the broadest, most comprehensive, and comparing glance, that of the most wise. This is particularly noticeable when the time of observation is short. The one has perceived little and generally the least important; the other has in the same time seen everything from top to bottom and has distinguished between the important and the unimportant, has observed the former rather longer than the latter, and is able to give a better description of what he has seen. And then, when two so different descriptions come before us, we wonder at them and say that one of them is untrue.[1b]

[1] E. L. Fischer: Theorie der Gesichtswahrnehmung. Mainz 1891.

[1b] Cf. Archiv, XVI, 371.

The speed of apperception has been subjected to measurement by Auerbach, Kries, Baxt, von Tigerstedt and Bergqvist, Stern, Vaschide, Vurpass, etc. The results show 0.015 to 0.035 seconds for compounded images. Unfortunately, most of these experiments have brought little unanimity in the results and have not compared, e. g., the apperception−times of very clever people with those of very slow and stupid ones. In the variety of perception lies the power of presentation (in our sense of the term). In the main other forces assist in this, but when we consider how the senses work in combination we must conclude that they determine their own forms. ``If we are to say that sense experience instructs us concerning the manifoldness of objects we may do so correctly if we add the scholium that many things could not be mentioned without synthesis." So D<o:>rner

writes. But if we approach the matter from another side, we see how remarkable it is that human perceptions can be compared at all. Hermann Schwarz says ``According to the opinion of the physicists we know external events directly by means of the organs, the nerves of which serve passively to support consciousness in the perception of such events. On the contrary, according to the opinion of most physiologists, the nerve fibers are active in the apprehension of external events, they modify it, alter it until it is well nigh unrecognizable, and turn it over to consciousness only after the original process has undergone still another trans− <p 193> formation into new forms of mechanical energy in the ganglion cells of the outer brain. This is the difference between the physical theory of perception and the physiological."

In this connection there are several more conditions pertaining to general sense−perception. First of all there is that so−called vicariousness of the senses which substitutes one sense for another, in representation. The _*actual_ substitution of one sense by another as that of touch and sight, does not belong to the present discussion. The substitution of sound and sight is only apparent. E. g., when I have several times heard the half−noticed voice of some person without seeing him, I will imagine a definite face and appearance which _*are_ pure imagination. So again, if I hear cries for help near some stream, I see more or less clearly the form of a drowning person, etc. It is quite different in touching and seeing; if I touch a ball, a die, a cat, a cloth, etc., with my eyes closed, then I may so clearly see the color of the object before me that I might be really seeing it. But in this case there is a real substitution of greater or lesser degree.

The same vicariousness occurs when perception is attributed to one sense while it properly belongs to another. This happens particularly at such times when one has not been present during the event or when the perception was made while only half awake, or a long time ago, and finally, when a group of other impressions have accompanied the event, so that there was not time enough, if I may say so, properly to register the sense impression. So, e. g., some person, especially a close friend, may have been merely heard and later quite convincingly supposed to have been seen. Sensitive people, who generally have an acuter olfactory sense than others, attach to any perceived odor all the other appropriate phenomena. The vicariousnesses of visual sensations are the most numerous and the most important. Anybody who has been pushed or beaten, and has felt the blows, will, if other circumstances permit and the impulse is strong enough, be convinced that he has seen his assaulter and the manner of the assault. Sometimes people who are shot at will claim to have seen the flight of the ball. And so again they will have seen in a dark night a comparatively distant wagon, although they have only heard the noise it made and felt the vibration. It is fortunate that, as a rule, such people try to be just in answering to questions which concern this substitution of one sense−perception for another. And such questions ought to be urgently put. That a false testimony can cause significant errors is as obvious as the fact <p 194> that such substitutions are most frequent with nervous and imaginative persons.

Still more significant is that characteristic phenomenon, to us of considerable importance, which might be called retrospective illumination of perception. It consists in the appearance of a sense− perception under conditions of some noticeable interruption, when the stimulus does not, as a rule, give rise to that perception. I cite a simple example in which I first observed this fact. Since I was a child there had been in my bed−room a clock, the loud ticking of which habit of many years prevented my hearing. Once, as I lay awake in bed, I heard it tick suddenly three times, then fall silent and stop. The occurrence interested me, I quickly got a light and examined the clock closely. The pendulum still swung, but without a sound; the time was right. I inferred that the clock must have stopped going just a few minutes before. And I soon found out why: the clock is not encased and the weight of the pendulum hangs free. Now under the clock there always stood a chair which this time had been so placed as to be inclined further backward. The weight followed that inclination and so the silence came about.

I immediately made an experiment. I set the clock going again, and again held the weight back. The last beats of the pendulum were neither quicker nor slower, nor louder or softer than any others, before the sudden stoppage of the clock. I believe the explanation to be as follows: As customary noises especially are unheard, I did not hear the pendulum of the clock. But its sudden stopping disturbed the balance of sound which had

been dominating the room. This called attention to the cause of the disturbance, i. e., the ticking which had ceased, and hence perception was intensified _*backwards_ and I heard the last ticks, which I had not perceived before, one after another. The latent stimulus caused by the ticking worked backward. My attention was naturally awakened only _*after_ the last tick, but my perception was consecutive.

I soon heard of another case, this time, in court. There was a shooting in some house and an old peasant woman, who was busy sewing in the room, asserted that she had just before the shooting heard a _*few_ steps in the direction from which the shot must have come. Nobody would agree that there was any reason for supposing that the person in question should have made his final steps more noisily than his preceding ones. But I am convinced that the witness told the truth. The steps of the new arrival were perceived subconsciously; the further disturbance of the perception hindered <p 195> her occupation and finally, when she was frightened by the shot, the upper levels of consciousness were illuminated and the noises which had already reached the subconsciousness passed over the threshold and were consciously perceived.

I learned from an especially significant case, how the same thing could happen with regard to vision. A child was run over and killed by a careless coachman. A pensioned officer saw this through the window. His description was quite characteristic. It was the anniversary of a certain battle. The old gentleman, who stood by the window thinking about it and about his long dead comrades, was looking blankly out into the street. The horrible cry of the unhappy child woke him up and he really began to see. Then he observed that he had in truth seen everything that had happened _*before_ the child was knocked over−−i. e., for some reason the coachman had turned around, turning the horses in such a way at the same time that the latter jumped sidewise upon the frightened child, and hence the accident. The general expressed himself correctly in this fashion: ``I saw it all, but I did not perceive and know that I saw it until _*after_ the scream of the child." He offered also in proof of the correctness of his testimony, that he, an old cavalry officer, would have had to see the approaching misfortune if he had consciously seen the moving of the coachman, and then he would have had to be frightened. But he knew definitely that he was frightened only when the child cried out−−he could not, therefore, have consciously perceived the preceding event. His story was confirmed by other witnesses.

This psychological process is of significance in criminal trials, inasmuch as many actionable cases depend upon sudden and unexpected events, where retrospective illumination may frequently come in. In such cases it is most important to determine what actually has been perceived, and it is never indifferent whether we take the testimony in question as true or not.

With regard to the senses of criminals, Lombroso and Ottolenghi have asserted that they are duller than those of ordinary people. The assertion is based on a collection made by Lombroso of instances of the great indifference of criminals to pain. But he has overlooked the fact that the reason is quite another thing. Barbarous living and barbarous morals are especially dulling, so that indifference to pain is a characteristic of all barbarous nations and characters. Inasmuch as there are many criminals among barbarous people, barbarity, criminality and indifference to pain come together in a <p 196> large number of cases. But there is nothing remarkable in this, and a direct relation between crime and dullness of the senses can not be demonstrated.

(b) The Sense of Sight.

Section 37. (I) *General Considerations*.

Just as the sense of sight is the most dignified of all our senses, it is also the most important in the criminal court, for most witnesses testify as to what they have seen. If we compare sight with the hearing, which is next in the order of importance, we discover the well−known fact that what is seen is much more certain and trustworthy than what is heard. ``It is better to see once than to hear ten times," says the universally−valid old maxim. No exposition, no description, no complication which the data of other senses offer, can present half as much as even a fleeting glance. Hence too, no sense can offer us such surprises as the sense of sight. If I

imagine the thunder of Niagara, the voice of Lucca, the explosion of a thousand cartridges, etc., or anything else that I have not heard, my imagination is certainly incorrect, but it will differ from reality only in degree. It is quite different with visual imagination. We need not adduce examples of magnificence like the appearance of the pyramids, a tropical light; of a famous work of art, a storm at sea, etc. The most insignificant thing ever seen but variously pictured in imagination will be greeted at first sight with the words: ``But I imagined it quite different!" Hence the tremendous importance of every local and material characteristic which the criminal court deals with. Every one of us knows how differently he has, as a rule, imagined the place of the crime to be; how difficult it is to arrive at an understanding with the witness concerning some unseen, local characteristic, and how many mistakes false images of the unseen have caused. Whenever I ciceroned anybody through the Graz Criminal Museum, I was continually assailed with ``Does this or that look so? But I thought it looked quite different!" And the things which evoke these exclamations are such as the astonished visitors have spoken and written about hundreds of times and often passed judgments upon. The same situation occurs when witnesses narrate some observation. When the question involves the sense of hearing some misunderstanding may be popularly assumed. But the people know little of optical illusions and false visual perceptions, though they are aware that incorrect auditions are frequent matters of fact. Moreover, to the heard object <p 197> a large number of more or less certain precautionary judgments are attached. If anybody, e. g., has _*heard_ a shot, stealthy footsteps, crackling flames, we take his experience always to be _*approximate_. We do not do so when he assures us he has _*seen_ these things or their causes. Then we take them−−barring certain mistakes in observation,−−to be indubitable perceptions in which misunderstanding is impossible.

In this, again, is the basis for the distrust with which we meet testimony concerning hearsay. For we feel uncertain in the mere absence of the person whose conversation is reported, since his value can not be determined. But a part of the mistrust lies in the fact that it is not vision but the perennially half−doubted hearing that is in issue. Lies are assigned mainly to words; but there are lies which are visual (deceptions, maskings, illusions, etc.). Visual lies are, however, a diminishing minority in comparison with the lies that are heard.

The certainty of the correctness of vision lies in its being tested with the sense of touch,−−i. e. in the adaptation of our bodily sense to otherwise existing things. As Helmholtz says, ``The agreement between our visual perceptions and the external world, rests, at least in the most important matters, on the same ground that all our knowledge of the actual world rests on, upon the experience and the lasting test of their correctness by means of experiments, i. e., of the movements of our bodies." This would almost make it seem that the supreme judge among the senses is the touch. But that is not intended; we know well enough to what illusions we are subject if we trust the sense of touch alone. At the same time we must suppose that the question here is one of the nature of the body, and this can be measured only by something similar, i.e., by our own physical characteristics, but always under the control of some other sense, especially the sense of sight.

The visual process itself consists, according to Fischer, ``of a compounded series of results which succeed each other with extraordinary rapidity and are causally related. In this series the following elements may principally be distinguished.

(1) The physico−chemical process.

(2) The physiologico−sensory.

(3) The psychological.

(4) The physiologico−motor.

(5) The process of perception."

It is not our task to examine the first four elements. In order

<p 198> clearly to understand the variety of perception, we have to deal with the last only. I once tried to explain this by means of the phenomenon of instantaneous photographs (cinematographs). If we examine one such representing an instant in some quick movement, we will assert that we never could have perceived it in the movement itself. This indicates that our vision is slower than that of the photographic apparatus, and hence, that we do not apprehend the smallest particular conditions, but that we each time unconsciously compound a group of the smallest conditions and construct in that way the so−called instantaneous impressions. If we are to compound a great series of instantaneous impressions in one galloping step, we must have condensed and compounded a number of them in order to get the image that we see with our eyes as instantaneous. We may therefore say that the least instantaneous image we ever see with our eyes contains many parts which only the photographic apparatus can grasp. Suppose we call these particular instances a, b, c, d, e, f, g, h, i, j, k, l, m; it is self−evident that the manner of their composition must vary with each individual. One man may compound his elements in groups of three: a, b, c,−−d, e, f,−−g, h, i, etc.; another may proceed in dyads: a, b,−−c, d,−−e, f,−−g, h,−−etc.; a third may have seen an unobservable instant later, but constructs his image like the first man: b, c, d,−−l, m, n, etc.; a fourth works slowly and rather inaccurately, getting: a, c, d,−−f, h, i,−−etc. Such variations multiply, and when various observers of the same event describe it they do it according to their different characteristics. And the differences may be tremendous. Substitute numerals for letters and the thing becomes clear. The relative slowness of our apprehension of visual elements has the other consequence that we interpolate objects in the lacun<ae> of vision _*according to our expectations_. The best example of this sort of thing would be the perception of assault and battery. When ten people in an inn see how A raises a beer glass against B's head, five expect: ``Now he'll pound him," and five others: ``Now he'll throw it." If the glass has reached B's head none of the ten observers have seen how it reached there, but the first five take their oath that A pounded B with the glass, and the other five that he threw it at B's head. And all ten have really seen it, so firmly are they convinced of the correctness of their swift judgment of expectation. Now, before we treat the witness to some reproach like untruth, inattention, silliness, or something equally nice, _*we_ had better consider whether his story is not true, <p 199> and whether the difficulty might not really lie in the imperfection of our own sensory processes. This involves partly what Liebmann has called ``anthropocentric vision," i. e., seeing with man as the center of things. Liebmann further asserts, ``that we see things only in perspective sizes, i. e., only from an angle of vision varying with their approach, withdrawal and change of position, but in no sense as definite cubical, linear, or surface sizes. The apparent size of an object we call an angle of vision at a certain distance. But, what indeed is the different, true size? We know only relations of magnitude." This description is important when we are dealing with testimony concerning size. It seems obvious that each witness who speaks of size is to be asked whence he had observed it, but at the same time a great many unexpected errors occur, especially when what is involved is the determination of the size of an object in the same plane. One need only to recall the meeting of railway tracks, streets, alleys, etc., and to remember how different in size, according to the point of view of the witness, various objects in such places must appear. Everybody knows that distant things seem smaller than near ones, but almost nobody knows what the difference amounts to. For examples see Lotze, ``Medical Psychology," Leipzig, 1852.

In addition we often think that the clearness of an object represents its distance and suppose that the first alone determines the latter. But the distinctness of objects, i. e., the perceptibility of a light−impression, depends also upon the absolute brightness and the differences in brightness. The latter is more important than is supposed. Try to determine how far away you can see a key−hole when the wall containing the door is in the shadow, and when there is a window opposite the key−hole. A dark object of the size of a key−hole will not be visible at one hundredth of the distance at which the key−hole is perceived. Moreover, the difference in intensity is not alone in consideration; the intensity of the object _*with regard to its background_ has yet to be considered. Aubert has shown that the accuracy of the distinction is the same when a square of white paper is looked at from an angle of 18", and when conversely a square of black paper on white background is looked at from an angle of 85". ``When we put a gray paper in the sunshine, it may become objectively brighter than white paper in shadow. But this does not prevent us from knowing one as gray and the other as pure white.

We separate the color of the object from the intensity of the incident light." But this is not always so simple, inasmuch as <p 200> we know in the case in hand which paper is gray and which white, which is in the sunlight and which in the shadow. But if these facts are not known mistakes often occur so that a man dressed in dark clothes but in full light will be described as wearing lighter clothes than one who wears light clothes in the shadow.

Differences of illumination reveal a number of phenomena difficult to explain. Fechner calls attention to the appearance of stars: ``At night everybody sees the stars, in daylight not even Sirius or Jupiter is seen. Yet the absolute difference between those places in the heavens where the stars are and the environing places is just as great as in the night−−there is only an increase in illumination." Of still greater importance to us is the circumstance noted but not explained by Bernstein. If, in daylight, we look into a basement room from outside, we can perceive nothing, almost; everything is dark, even the windows appear black. But in the evening, if the room is ever so slightly illuminated, and we look into it from outside, we can see even small articles distinctly. Yet there was much intenser light in the room in question during the day than the single illumination of the night could have provided. Hence, it is asserted, the difference in this case is a standard one. In open day the eye is accustomed to the dominating brightness of daylight, beside which the subdued illumination of the room seems relatively dark. But in the evening one is in the dark, and hence even the little light of a single candle is enough to enable one to see. That this explanation is untrue is shown by the fact that the phenomenon is not regulated even when the circumstances in question are made identical. If, for example, you approach the window in daylight with your eyes shut, lean your forehead against the pane and shut out the light on the sides with your hands, and then open your eyes, you see as little in the room as when you looked into it without performing this ceremony. So again, if during the night you gazed at some near−by gas lamp and then glanced into the room, there is only a few moments' indistinctness at most, after that the single candle is enough. The reason, then, must be different from the assigned one−−but whatever it is, we need only to maintain that immediate judgment concerning numerous cases involving situations of this kind would be overhasty. It is often said that a witness was able to see this or that under such and such illumination, or that he was unable to see it, although he denies his ability or inability. The only solution of such contradictions is an experiment. The attempt must be made either by the judge or some reliable <p 201> third person, to discover whether, under the same conditions of illumination, anything could be seen at the place in question or not.

As to _*what_ may be seen in the distance, experiment again, is the best judge. The human eye is so very different in each man that even the acute examination into what is known of the visual image of the Pleiades shows that the _*average_ visual capacity of classic periods is no different from our own, but still that there was great variety in visual capacity. What enormous visual power is attributed to half−civilized and barbarous peoples, especially Indians, Esquimos, etc.! Likewise among our own people there are hunters, mountain guides, etc., who can see so clearly in the distance that mere stories about it might be fables. In the Bosnian campaign of 1878 we had a soldier who in numerous cases of our great need to know the enemy's position in the distance could distinguish it with greater accuracy than we with our good field−glasses. He was the son of a coal−miner in the Styrian mountains, and rather a fool. Incidentally it may be added that he had an incredible, almost animal power of orientation.

As we know little concerning far−sightedness, so also we are unable to define what near−sighted people can see. Inasmuch as their vision does not carry, they are compelled to make intellectual supplementations. They observe the form, action, and clothes of people more accurately than sharp−eyed persons, and hence recognize acquaintances at a greater distance than the latter. Therefore, before an assertion of a short−sighted man is doubted an experiment should be made, or at least another trustworthy short−sighted person should be asked for his opinion.

The background of objects, their movement and form have decided effects on the difference in visual perception. It is an ancient observation that lengthy objects like poles, wires, etc., are visible at incomparably greater distances than, e. g., squares of the same length. In examination it has been shown that the boundary of

accurate perception can hardly be determined. I know a place where under favorable illumination taut, white and very thin telephone wires may be seen at a distance of more than a kilometer. And this demands a very small angle of vision.

Humboldt calls attention to the large number of ``optical fables." He assures us that it is certainly untrue that the stars may be seen in daylight from a deep well, from mines, or high mountains, although this has been repeatedly affirmed since Aristotle.

The explanation of our power to see very thin, long objects at <p 202> a very great distance, is not our affair, but is of importance because it serves to explain a number of similar phenomena spoken of by witnesses. We have either incorrectly to deny things we do not understand, or we have to accept a good deal that is deniable. We will start, therefore, with the well−known fact that a point seen for a considerable time may easily disappear from perception. This has been studied by Helmholtz and others, and he has shown how difficult it is to keep a point within the field of vision for only ten or twenty minutes. Aubert examines older studies of the matter and concludes that this disappearance or confusion of an object is peripheral, but that fixation of a small object is always difficult. If we fix a distant point it is disappearing at every instant so that an accurate perception is not possible; if however we fix upon a long, thin body, e. g., a wire, it is unnecessary to fix a single point and we may see the object with a wandering eye, hence more clearly.

Helmholtz adds that weakly objective images disappear like a wet spot on warm tin, at the moment a single point is fixed, as does e. g., a landscape seen at night. This last acute observation is the basis of many a testimony concerning the sudden disappearance of an object at night. It has helped me in many an examination, and always to advantage.

In this connection the over−estimation of the moon's illuminating power is not to be forgotten. According to Helmholtz the power of the full moon is not more than that of a candle twelve feet away. And how much people claim to have seen by moonlight! Dr. Vincent[1] says that a man may be recognized during the first quarter at from two to six meters, at full moon at from seven to ten meters, and at the brightest full moon, an intimate may be recognized at from fifteen to sixteen meters. This is approximately correct and indicates how much moonlight is over−estimated.

[1] Vincent: Trait<e'> de M<e'>decine l<e'>gale de L<e'>grand du Saule.

In addition to the natural differences of sight there are also those artificially created. How much we may help ourselves by skilful distinctions, we can recognize in the well−known and frequently− mentioned business of reading a confused handwriting. We aim to weaken our sense−perception in favor of our imagination, i. e. so to reduce the clearness of the former as to be able to test upon it in some degree a larger number of images. We hold the MS. away from us, look at it askant, with contracted eyebrows, in different lights, and finally we read it. Again, the converse occurs. If we have seen something with a magnifying glass we later recognize <p 203> details without its help. Definite conditions may bring to light very great distinctions. A body close to the face or in the middle distance looks different according as one eye or both be used in examining it. This is an old story and explains the queer descriptions we receive of such objects as weapons and the like, which were suddenly held before the face of the deponent. In cases of murderous assault it is certain that most uncanny stories are told, later explained by fear or total confusion or intentional dishonesty, but really to be explained by nothing more than actual optical processes.

I do not believe that binocular vision is of much importance in the law; I know of no case in ordinary vision where it matters whether one or both eyes have been used. It is correct to assert that one side or the other of a vertically held hand will be clearer if, before looking at it with both eyes, you look at it with one or the other, but this makes little difference to our purpose. It must be maintained that a part of what we see is seen with one eye only,−−if, e. g., I look at the sky and cover one eye with my hand, a certain portion of the heaven disappears, but I observe no alteration in the remaining portion. When I cover the other eye, other stars

disappear. Therefore, in binocular vision certain things are seen with one eye only. This may be of importance when an effect has been observed first with both eyes, then with one; raising the question of the difference in observation−−but such a question is rare.

There are two additional things to consider. The first is the problem of the influence of custom on increasing visual power in darkness. This power is as a rule undervalued. No animal, naturally, can see anything in complete darkness. But it is almost unbelievable how much can be seen with a very little light. Here again, prisoners tell numerous stories concerning their vision in subterranean prisons. One saw so well as to be able to throw seven needles about the cell and then to find them again. Another, the naturalist Quatrem<e'>re−Disjonval, was able so accurately to observe the spiders in his cell as to make the observation the basis for his famous ``Aran<e'>ologie." Aubert tells of his having had to stay in a room so dark as to make it necessary for others to feel their way, but nevertheless being able to read books without detection because the others could not see the books.

How quickly we get used to darkness and how much more we see after a while, is well known. It is also certain that the longer you are in darkness the more you see. You see more at the end of a day than after a few hours, and at the end of a year, still more. The <p 204> eye, perhaps, changes in some degree for just this purpose. But a prolonged use of the visual mechanism tends to hypertrophy−− or atrophy, as the eyes of deep−sea fishes show. It is well, in any event, to be careful about contradicting the testimonies of patients who have long lived in the dark, concerning what they have seen. The power to see in the dark is so various that without examination, much injustice may be done. Some people see almost nothing at twilight, others see at night as well as cats. And in court these differences must be established and experimentally verified.

The second important element is the innervation of the muscles in consequence of movement merely seen. So Stricker points out, that the sight of a man carrying a heavy load made him feel tension in the muscles involved, and again, when he saw soldiers exercising, he almost was compelled openly to act as they. In every case the muscular innervation followed the visual stimulus.

This may sound improbable but, nevertheless, everybody to some degree does the identical things. And at law the fact may be of importance in cases of assault and battery. Since I learned it, I have repeatedly observed in such cases, from harmless assault to murder, that people, although they had not been seen to deal any blows, were often accused of complicity simply because they were making suspicious movements that led to the following inference: ``They stuck their hands into their trousers pocket looking for a knife, clenched their fists, looked as if they were about to jump, swung their hands." In many such cases it appeared that the suspects were harmless spectators who were simply more obvious in their innervation of the muscles involved in the assault they were eagerly witnessing. This fact should be well kept in mind; it may relieve many an innocent.

Section 38. (2) *Color Vision*.

Concerning color vision only a few facts will be mentioned: 1. It will be worth while, first of all, to consider whether color exists. Liebmann holds that if all the people were blind to red, red would not exist; red, i. e., is some cervical phantasy. So are light, sound, warmth, taste, etc. With other senses we have another world. According to Helmholtz, it is senseless to ask whether cinnabar is red as we see it or is only so as an optical illusion. ``The sensation of red is the normal reaction of normally constructed eyes to light reflected from cinnabar. A person blind to red, will see cinnabar as black, or a dark grayish yellow, and this is the correct reaction <p 205> for these abnormal eyes. But he needs to know that his eyes are different from those of other people. In itself the sensation is neither more correct nor less correct than any other even though those who can see red are in the great majority. The red color of cinnabar exists as such only in so far as there are eyes which are similar to those of the majority of mankind. As such light reflected from cinnabar may not properly be called red; it is red only for especial kinds of eyes." This is so unconditionally incorrect that an impartial judge of photography says[1] that everything that normal eyes call violet and blue, is very bright, and

everything they call green and red is very dark. The red−blind person will see as equal certain natural reds, greens and gray−yellows, both in intensity and shadow. But on the photograph he will be able to distinguish the differences in brightness caused by these three otherwise identical colors. We may, therefore, assume that colors possess _*objective_ differences, and that these objective differences are perceived even by persons of normal vision. But whether I am able to sense the same effect in red that another senses, and whether I should not call red blue, if I had the color−vision of another, is as impossible to discover as it is useless. When the question of color is raised, therefore, we will try to discover only whether the person in question has normal color− vision, or what the nature and degree of his abnormality may be.

[1] W. Heinrich: <U:>bersicht der Methoden bei Untersuchung der Farbenwahr. nehmungen. Krakau 1900.

2. It is not unimportant to know whether single tints are recognizable in the distance. There have been several examinations of this fact. Aubert[2] constructed double squares of ten millimeters and determined the angle of vision at which the color as such could be seen. His results were:

COLOR OF THE WHITE BLACK SQUARE BACKGROUND White 39" Red 1' 43" 59" Light Green 1' 54" 1' 49" Dirty Red 3' 27" 1' 23" Blue 5' 43" 4' 17" Brown 4' 55" 1' 23"

Light Blue 2' 17" 1' 23" Orange 1' 8" 0' 39" Gray 4' 17" 1' 23" Rose 2' 18" 3' 99" Yellow 3' 27" 0' 39"

[2] Physiologie der Netzha.ut. Breslau 1865.

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It is interesting to notice that the angle for blue on a white background is almost nine times that for white, orange, or yellow on a black background. In cases where colors are of importance, therefore, it will be necessary to discover the color and the nature of its background before the accuracy of the witness can be established.

3. It is well known that in the diminution of brightnesses red disappears before blue, and that at night, when all colors have disappeared, the blue of heaven is still visible. So if anybody asserts that he has been able to see the blue of a man's coat but not his red−brown trousers, his statement is possibly true, while the converse would be untrue. But there are no reliable or consonant accounts of the order in which colors disappear in increasing darkness. The knowledge of this order would help a great deal in the administration of criminal justice.

4. The retina will not see red at the periphery, because there are no red rods there. A stick of red sealing wax drawn across the eye from right to left, appears at the periphery of the visual field to be black. If, then, a witness has not looked right at a definitely red object, and has seen it askance, he has certainly not observed its color. The experiment may be made by anybody.

5. According to Quantz[1] objects in less refractable colors (red, orange, yellow, and purple) look 0.2 to 3.6% bigger against white, while blue, blue−green, and violet objects appear from 0.2 to 2.2% smaller. Dark and long−lined objects seem longer; bright and horizontal seem wider. And these facts are significant when witnesses judge of size.

[1] J. O. Quantz: The Influence of the Color of Surfaces on our Estimation of their Magnitudes. Am. Journal of Psychology VII, 95.

6. If colors are observed through small openings, especially through very small holes, the nuances become essentially different and green may even seem colorless.

7. According to Aubert, sparkle consists of the fact that one point in a body is very bright while the brightness diminishes almost absolutely from that point; e. g., a glancing wire has a very narrow bright line with deep shadows on each side; a ball of mercury in a thermometer, a shining point and then deep shadow. When we see this we say it sparkles because we unite it with a number of similar observations. It is therefore conceivable that at a great distance, under conditions of sharp or accidental illuminations, etc., we are likely to see things as sparkling which do not do so in the least. With the concept ``sparkling," moreover, we tend to unite, <p 207> at least under certain circumstances, definite images, and hence ``glancing weapons" are often seen in places where there were only quite harmless dull objects. So also coins are seen to sparkle where really there are none.

Section 39. (3) *The Blind Spot*.

Everybody knows what the blind spot is, and every psychology and physiology text−book talks about it. But as a rule it is identified only with the little point and the tiny cross pictured in the textbooks, and it is supposed that it does not much matter if the little cross, under certain circumstances, can not be seen. But it must not be forgotten that the size of the blind spot increases with the distance so that at a fairly great distance, possibly half the length of a room, the blind spot becomes so great that a man's head may disappear from the field of vision. According to Helmholtz: ``The effect of the blind spot is very significant. If we make a little cross on a piece of paper and then a spot the size of a pea two inches to the right, and if we look at the cross with the left eye closed, the spot disappears. The size of the blind spot is large enough to cover in the heavens a plate which has twelve times the diameter of the moon. It may cover a human face at a distance of 6', but we do not observe this because we generally fill out the void. If we see a line in the place in question, we see it unbroken, because we know it to be so, and therefore supply the missing part."

A number of experiments have been made with more or less success to explain the blind spot. It is enough for us to agree that we see habitually with both eyes and that the ``spot as big as a pea" disappears only when we look at the cross. But when we fix our eyes on anything we pay attention to that only and to nothing else. And it is indifferent to us if an uninteresting object disappears, so that the moment we begin to care about the ``spot as large as a pea," it is immediately to hand and needs no imaginative completion. If it be objected that fixing with the eyes and being interested are not identical, we reply that a distinction is made only in experiment. You fix one point and are interested in the other because you expect it to disappear. And this experiment, as anybody will immediately recognize, has its peculiar difficulty, because it requires much concentration _*not_ to look at the point which interests us. This never happens in the daily life, and it will not be easy to fix a point which is not interesting.

At the same time there are conceivable cases in which objects <p 208> seen askance may be of importance, and where the visual fixation of a single point will not reveal every reflection that fell on the blind spot. I have not met with a practical case in which some fact or testimony could be explained only by the blind spot, but such cases are conceivable.

Section 40. (c) The Sense of Hearing.

We have two problems with regard to sound−−whether the witnesses have heard correctly, and whether we hear them correctly. Between both witnesses and ourselves there are again other factors. Correct comprehension, faithful memory, the activity of the imagination, the variety of influences, the degree of personal integrity; but most important is the consideration, whether the witness has heard correctly. As a general thing we must deny in most cases completely accurate reproduction of what witnesses have heard. In this connection dealing with questions of honor is instructive. If the question is the recall of slander the terms of it will be as various as the number of witnesses. We discover that the sense, the tendency of slander is not easily mistaken. At least if it is, I have not observed it. The witness, e. g., will confuse the words ``scamp," ``cheat," ``swindler," etc., and again the words: ``ox," ``donkey," ``numbskull," etc. But he will not say that he has heard ``scamp" where what was said was ``donkey." He simply has observed that A has insulted B with an

epithet of moral turpitude or of stupidity and under examination he inserts an appropriate term. Often people hear only according to meanings and hence the difficulty of getting them to reproduce verbally and directly something said by a third person. They always engage upon indirect narration because they have heard only the meaning, not the words. Memory has nothing to do with this matter, for when in examination, a witness is requested to reproduce directly what he has just heard, he will reproduce no more than the sense, not the words. Not to do so requires an unusual degree of intelligence and training.

Now if the witnesses only reproduced the actual meaning of what they heard, no harm would be done, but they tell us only what they _*suppose_ to be the meaning, and hence we get a good many mistakes. It does seem as if uneducated and half−educated people are able to shut their ears to all things they do not understand. Even purely sensory perception is organized according to intelligent capacity.

If this is kept in mind it will be possible correctly to interpret testimonies in those difficult instances in which one man narrates <p 209> what he has heard from another concerning his own statement, and where it might be quite impossible to judge the nature and culture of this third person. There are a few other conditions to consider besides.

If we have to discover a person's hearing power or his hearing power under definite conditions, it is best never to depend, in even slightly important cases, on vocal tests merely. The examination must be made by experts, and if the case is really subtle it must be made under the same circumstances of place and condition, and with the same people as in the original situation. Otherwise nothing certain can be learned.

The determination of auditory power is, however, insufficient, for this power varies with the degree any individual can distinguish a single definite tone among many, hear it alone, and retain it. And this varies not only with the individual but also with the time, the place, the voice, etc. In my bed−room, e. g., and in three neighboring rooms I have wall−clocks each of which is running. The doors of the room are open right and left. At night when everything is quiet, I can sometimes hear the ticking of each one of these clocks; immediately isolate one completely and listen to that so that the ticking of the other three completely disappears. Then again I may kindly command myself not to hear this ticking, but to hear one of the other three, and I do so, though I fail to hear two clocks together at just the same instant. On another day under similar circumstances I completely fail in this attempt. Either I hear none of the clocks in particular, or only for a short time, which results in the ticking's being again lost in the general noise; or I do hear the ticking of one clock, but never of that which I have chosen to hear.

This incident is variously explicable and the experiment may be repeated with various persons. It indicates that auditory capacity is exceedingly differentiated and that there is no justification for aprioristic doubt of especial powers. It is, however, admittedly difficult to say how experiments can be made under control.

There are still a few more marvels. It is repeatedly asserted, e. g., by Tyndall, that a comparatively large number of people do not hear high tones like the chirping of crickets, although the normal hearing of such people is acute. Others again easily sense deep tones but distinguish them with difficulty because they retain only a roll or roar, but do not hear the individual tones.[1] And generally, <p 210> almost all people have difficulty in making a correct valuation of the direction of sound. Wundt says that we locate powerful sounds in front of us and are generally better able to judge right and left than before and behind.[1b] These data, which are for us quite important, have been subjected to many tests. Wundt's statement has been confirmed by various experiments which have shown that sound to the right and the left are best distinguished, and sounds in front and below, in front to the right and to the left, and below, to the right and to the left, are least easily distinguished. Among the experimenters were Preyer, Arnheim, Kries, M<u:>nsterberg.

[1] People of extreme old age do not seem to be able to hear shrill tones. A friend of mine reports this to be the case with the composer, Robert Franz.

[1b] W. Wundt: Grundz<u:>ge.

All these experiments indicate certain constant tendencies to definite mistakes. Sounds in front are often mistaken for sounds behind and felt to be higher than their natural head−level. Again, it is generally asserted that binaural hearing is of great importance for the recognition of the direction of sound. With one ear this recognition is much more difficult. This may be verified by the fact that we turn our heads here and there as though to compare directions whenever we want to make sure of the direction of sound. In this regard, too, a number of effective experiments have been made.

When it is necessary to determine whether the witness deposes correctly concerning the direction of sound, it is best to get the official physician to find out whether he hears with both ears, and whether he hears equally well with both. It is observed that persons who hear excellently with both ears are unfortunate in judging the direction of sound. Others again are very skilful in this matter, and may possibly get their skill from practice, sense of locality, etc. But in any case, certainty can be obtained only by experimentation.

With regard to the conduction of sound−−it is to be noted that sound is carried astonishingly far by means of compact bodies. The distance at which the trotting of horses, the thunder of cannons, etc., may be heard by laying the ear close to the ground is a commonplace in fiction. Therefore, if a witness testifies to have heard something at a great distance in this way, or by having laid his ear to the wall, it is well not to set the evidence aside. Although it will be difficult in such cases to make determinative experiments, it is useful to do so because the limits of his capacity are then approximated.

Under certain circumstances it may be of importance to know what can be heard when the head, or at least the ear, is under water. The experiment may be made in the bath−room, by setting the back of the head under water so that the ears are completely covered <p 211> but the mouth and the eyes are free. The mouth must be kept closed so that there shall be no intrusion of sound through the Eustachian tube. In this condition practically no sound can be heard which must _*first pass through the air_. If, therefore, anybody even immediately next to you, speaks ever so loud, you can hear only a minimum of what he says. On the other hand, noises that are conducted by compact bodies, i. e. the walls, the bath, and the water, can be heard with astonishing distinctness, especially if the bath is not detachable but is built into the wall. Then if some remote part of the building, e. g. some wall, is knocked, the noise is heard perfectly well, although somebody standing near the bath hears nothing whatever. This may be of importance in cases of accident, in certain attempts at drowning people, and in accidental eaves−dropping.

There are several things to note with regard to deaf persons, or such as have difficulty with their hearing. According to Fechner, deafness begins with the inability to hear high tones and ends with the inability to hear deep ones, so that it often happens that complainants are not believed because they still hear deep tones. Again, there are mistakes which rise from the fact that the deaf often learn a great deal from the movements of the lips, and the reading of these movements has become the basis of the so−called ``audition" of deaf mutes. There are stories of deaf mutes who have perceived more in this way, and by means of their necessary and well−practised synthesis of impressions, than persons with good hearing power.

The differences that age makes in hearing are of importance. Bezold has examined a large number of human ears of different ages and indicates that after the fiftieth year there is not only a successive decrease in the number of the approximately normal−hearing, but there is a successively growing increase in the degree of auditory limitation which the ear experiences with increasing age. The results are more surprising than is supposed.

Not one of 100 people over fifty years of age could understand conversational speech at a distance of sixteen meters; 10.5% understood it at a distance of eight to sixteen meters. Of school children 46.5% (1918 of them) from seven to eighteen understood it at a distance of 20 meters plus, and 32.7% at a distance of from 16 to 8 meters. The percentage then is 10.5 for people over fifty as against 79.2 of people over seven and under 18.

Old women can hear better than old men. At a distance of 4 to 16 meters the proportion of women to men who could hear was 34 to 17. The converse is <p 212> true of children, for at a distance of 20 meters and more the percentage of boys was 49.9 and girls 43.2. The reason for this inversion of the relation lies in the harmful influences of manual labor and other noisy occupations of men. These comparisons may be of importance when the question is raised as to how much more a witness may have heard than one of a different age.

Section 41. (d) The Sense of Taste.

The sense of taste is rarely of legal importance, but when it does come into importance it is regularly very significant because it involves, in the main, problems of poisoning. The explanation of such cases is rarely easy and certain−−first of all, because we can not, without difficulty, get into a position of testing the delicacy and acuteness of any individual sense of taste, where such testing is quite simple with regard to seeing and hearing. At the same time, it is necessary when tests are made, to depend upon general, and rarely constant impressions, since very few people mean the same thing by, stinging, prickly, metallic, and burning tastes, even though the ordinary terms sweet, sour, bitter, and salty, may be accepted as approximately constant. The least that can be done when a taste is defined as good, bad, excellent, or disgusting, is to test it in every possible direction with regard to the age, habits, health, and intelligence of the taster, for all of these exercise great influence on his values. Similarly necessary are valuations like flat, sweetish, contractile, limey, pappy, sandy, which are all dictated by almost momentary variations in well−being.

But if any denotation is to be depended upon, and in the end some one has to be, it is necessary to determine whether the perception has been made with the end or the root of the tongue.[1] Longet, following the experiments of certain others, has brought together definite results in the following table:

TASTE TONGUE−TIP TONGUE ROOT Glauber's salts . . salty bitter Iodkalium . . . . . `` `` Alum. . . . . sour sweet Glycerine . . . . . none `` Rock candy. . . . . `` `` Chlorate of strychnine `` `` Natrium carbonate . `` alkaloid

[1] A. Strindberg. Zur Physiologie des Geschmacks. wiener Rundschau, 1900. p. 338 ff.

<p 213>

In such cases too, particularly as diseased conditions and personal idiosyncrasies exercise considerable influences, it will be important to call in the physician. Dehn is led by his experiments to the conclusion that woman's sense of taste is finer than man's, and again that that of the educated man finer than that of the uneducated. In women education makes no difference in this regard.

Section 42. (e) The Sense of Smell.

The sense of smell would be of great importance for legal consideration if it could get the study it deserves. It may be said that many men have more acute olfactory powers than they know, and that they may learn more by means of them than by means of the other senses. The sense of smell has little especial practical importance. It only serves to supply a great many people with occasional disagreeable impressions, and what men fail to find especially necessary they do not easily make use of. The utility of smell would be great because it is accurate, and hence powerful in its associative quality. But it is rarely attended to; even when the associations are awakened they are not ascribed to the sense of smell but are said to be accidental. I offer one example only, of this common fact. When I was a child of less than eight years, I once visited with my parents a priest who was a school−mate of my father's. The day spent in the parsonage contained nothing remarkable, so that all these years I have not even thought of it. A short time ago all the details I encountered on that day occurred to me very vividly, and inasmuch as this sudden memory seemed baseless, I studied carefully the cause of its occurrence, without success. A short time later I had the same experience and at the same place. This was a clew, and I then recalled that I had undertaken a voyage of discovery with the small niece of the

parson and had been led into a fruit cellar. There I found great heaps of apples laid on straw, and on the wall a considerable number of the hunting boots of the parson. The mixed odors of apple, straw and boots constituted a unique and long unsmelled perfume which had sunk deep into my memory. And as I passed a room which contained the same elements of odor, all those things that were associated with that odor at the time I first smelt it, immediately recurred.

Everybody experiences such associations in great number, and in examinations a little trouble will bring them up, especially when the question deals with remote events, and a witness tells about some ``accidental'' idea of his. If the accident is considered to be <p 214> an association and studied in the light of a memory of odor, one may often succeed in finding the right clew and making progress.

But accurate as the sense of smell is, it receives as a rule little consideration, and when some question concerning smell is put the answer is generally negative. Yet in no case may a matter be so easily determined as in this one; one may without making even the slightest suggestion, succeed in getting the witness to confess that he had smelled something. Incidentally, one may succeed in awakening such impressions as have not quite crossed the threshold of consciousness, or have been subdued and diverted. Suppose, e. g., that a witness has smelled fire, but inasmuch as he was otherwise engaged was not fully conscious of it or did not quite notice it, or explained it to himself as some kitchen odor or the odor of a bad cigar. Such perceptions are later forgotten, but with proper questioning are faithfully and completely brought to memory.

Obviously much depends on whether anybody likes certain delicate odors or not. As a rule it may be held that a delicate sense of smell is frequently associated with nervousness. Again, people with broad nostrils and well developed foreheads, who keep their mouths closed most of the time, have certainly a delicate sense of smell. People of lymphatic nature, with veiled unclear voices, do not have a keen sense of smell, and still duller is that of snufflers and habitual smokers. Up to a certain degree, practice may do much, but too much of it dulls the sense of smell. Butchers, tobacconists, perfumers, not only fail to perceive the odors which dominate their shops; their sense of smell has been dulled, anyway. On the other hand, those who have to make delicate distinctions by means of their sense, like apothecaries, tea dealers, brewers, wine tasters, etc. achieve great skill. I remember that one time when I had in court to deal almost exclusively with gypsies, I could immediately smell whether any gypsies had been brought there during the night.

Very nervous persons develop a delicateness and acuteness of smell which other persons do not even imagine. Now we have no real knowledge of how odors arise. That they are not the results of the radiation of very tiny parts is shown by the fact that certain bodies smell though they are known not to give off particles. Zinc, for example, and such things as copper, sulphur, and iron, have individual odors; the latter, particularly when it is kept polished by a great deal of friction,−−e.g., in the cases of chains, key−rings kept in the pocket. <p 215>

In defining the impressions of smell great difficulties occur. Even normal individuals often have a passionate love for odors that are either indifferent or disgusting to others (rotten apples, wet sponges, cow−dung, and the odor of a horse−stable, garlic, assafoetida, very ripe game, etc.). The same individual finds the odor of food beautiful when hungry, pleasant when full−fed, and unendurable when he has migraine. It would be necessary to make an accurate description of these differences and all their accompanying circumstances. With regard to sex, the sense of smell, according to Lombroso,[1] is twice as fine in men as in women. This is verified by Lombroso's pupils Ottolenghi and Sicard, Roncoroni and Francis Galton. Experience of daily life does not confirm this, though many smokers among men rarely possess acute sense of smell, and this raises the percentage considerably in favor of women.

[1] C. Lombroso and G. Ferrero. The Female Offender.

Section 43. (f) The Sense of Touch.

I combine, for the sake of simplicity, the senses of location, pressure, temperature, etc., under the general

expression: sense of touch. The problem this sense raises is no light one because many witnesses tell of perceptions made in the dark or when they were otherwise unable to see, and because much is perceived by means of this sense in assaults, wounds, and other contacts. In most cases such witnesses have been unable to regard the touched parts of their bodies, so that we have to depend upon this touch−sense alone. Full certainty is possible only when sight and touch have worked together and rectified one another. It has been shown that the conception of the third dimension can not be obtained through the sense of sight. At the beginning we owe the perception of this dimension only to touch and later on to experience and habit. The truth of this statement is confirmed by the reports of persons who, born blind, have gained sight. Some were unable to distinguish by means of mere sight a silver pencil−holder from a large key. They could only tell them to be different things, and recognized their nature only after they had felt them. On the other hand, the deceptive possibilities in touch are seen in the well−known mistakes to which one is subjected in blind touching. At the same time practice leads to considerable accuracy in touch and on many occasions the sense is trusted more than sight−−e. g., whenever we test the delicacy of an object with our finger−tips. The fineness of paper, leather, the smoothness of a surface, the presence of points, <p 216> are always tested with the fingers. So that if a witness assures us that this or that was very smooth, or that this surface was very raw, we must regularly ask him whether he had tested the quality by touching it with his fingers, and we are certain only if he says yes. Whoever has to depend much on the sense of touch increases its field of perception, as we know from the delicacy of the sense in blind people. The statements of the blind concerning their contact sensations may be believed even when they seem improbable; there are blind persons who may feel the very color of fabrics, because the various pigments and their medium give a different surface− quality to the cloth they color.

In another direction, again, it is the deaf who have especial power. So, we are assured by Abercrombie that in his medical practice he had frequently observed how deaf people will perceive the roll of an approaching wagon, or the approach of a person, long before people with good hearing do so. For a long time I owned an Angora which, like all Angoras, was completely deaf, and her deafness had been tested by physicians. Nevertheless, if the animal was dozing somewhere and anybody came near it, she would immediately notice his steps, and would distinguish them, for she would jump up frightened, if the newcomer was unknown, and would stretch herself with pleasure in the expectation of petting if she felt a friend coming. She would sense the lightest touch on the object she occupied, bench, window−seat, sofa, etc., and she was especially sensitive to very light scratching of the object. Such sensitivity is duplicated frequently in persons who are hard of hearing, and whom, therefore, we are likely to doubt.

The sense of touch is, moreover, improved not only by practice, but also by the training of the muscles. Stricker asserts that he has frequently noticed that the observational capacity of individuals who make much use of their muscles is greater than among persons whose habits are sedentary. This does not contradict the truth established by many experiments that the educated man is more sensitive in all directions than the uneducated. Again, women have a better developed sense of touch than men, the space−sense and the pressure−sense being equivalent in both sexes. On these special forms of the touch−sense injections of various kinds have decided influence. The injection of morphine, e. g., reduces the space−sense in the skin. *Cannabinum tannicum* reduces sensibility and alcohol is swift and considerable in its effects. According to Reichenbach some sensitives are extreme in their feeling. The <p 217> best of them notice immediately the approach and relative position of people, or the presence of another in a dark room. That very nervous people frequently feel air pressure, fine vibrations, etc., is perfectly true. And this and other facts show the great variety of touch impressions that may be distinguished. The sense of temperature has a comparatively high development, and more so in women than in men. At the lips and with the tips of the fingers, differences of two−tenths of a degree are perceived. But where an absolute valuation and not a difference is to be perceived, the mean variation, generally, is not much less than 4 degrees. E. g., a temperature of 19 degrees R. will be estimated at from 17 to 21 degrees. I believe, however, that the estimation of very common temperatures must be accepted as correct. E. g., anybody accustomed to have his room in winter 14 degrees R. will immediately notice, and correctly estimate, the rise or fall of one degree. Again, anybody who takes cold baths in summer will observe a change of one degree in temperature. It will, therefore, be possible to believe the pronouncements of witnesses concerning a narrow range of temperatures, but all the conditions of perception

must be noted for the differences are extreme. It has been shown, e. g., that the whole hand finds water of 29 degrees R. warmer than water of 32 degrees R. which is merely tested with the finger. Further, Weber points out,[1] ``If we put two adjacent fingers into two different warm fluids the sensations flow together in such a way that it is difficult to distinguish differences. But if we use two hands in this test, it is especially successful when we change the hands from one fluid to another. The closer the points on the skin which receive contemporary impressions and perhaps, the closer the portions of the brain to which these impressions are sent, the more easily these sensations flow together while again, the further they are from one another the less frequently does this occur." In the practice of criminal law such matters will rarely arise, but estimations of temperature are frequently required and their reliability must be established.

[1] E. H. Weber: Die Lehre vom Tastsinn u. Gemeingef<u:>hl. Braunschweig 1851.

It is important to know what a wounded man and his enemy feel in the first instant of the crime and in what degree their testimonies are reliable. First of all, we have to thank the excellent observations of Weber, for the knowledge that we find it very difficult to discover with closed eyes the angle made by a dagger thrust against the body. It is equally difficult to determine the direction from <p 218> which a push or blow has come. On the other hand we can tell very accurately in what direction a handful of hair is pulled.

With regard to the time it takes to feel contact and pain, it is asserted that a short powerful blow on a corn is felt immediately, but the pain of it one to two seconds later. It may be that corns have an especial constitution, but otherwise the time assigned before feeling pain is far too long. Helmholtz made 1850 measurements which proved that the nervous current moves 90 feet a second. If, then, you prick your finger, you feel it a thirtieth of a second later. The easiest experiments which may be made in that regard are insufficient to establish anything definite. We can only say that the perception of a peripheral pain occurs an observable period after the shock, i. e., about a third of a second later than its cause.

The sensation of a stab is often identified as contact with a hot object, and it is further asserted that the wounded person feels close to the pain which accompanies the push or the cut, the cold of the blade and its presence in the depths of his body. So far as I have been able to learn from wounded people, these assertions are not confirmed. Setting aside individuals who exaggerate intentionally and want to make themselves interesting or to indicate considerable damage, all answers point to the fact that stabs, shots, and blows are sensed as pushes. In addition, the rising of the blood is felt almost immediately, but nothing else; pain comes much later. It is asserted by couleur−students[1] who have occasion to have a considerable number of duels behind them, that ``sitting thrusts," even when they are made with the sharpest swords, are sensed only as painless, or almost painless, blows or pushes. Curiously enough all say that the sensation is felt as if caused by some very broad dull tool: a falling shingle, perhaps. But not one has felt the cold of the entering blade.

[1] Students who are members of student societies distinguished by particular colors.

Soldiers whose shot wounds were inquired into, often just a few minutes after their being wounded, have said unanimously that they had felt only a hard push.

It is quite different with the man who causes the wound. Lotze has rightly called attention to the fact that in mounting a ladder with elastic rungs one perceives clearly the points at which the rungs are fastened to the sides. The points at which an elastic trellis is fastened is felt when it is shaken, and the resistance of the wood when an axe is used on it. In the same way the soldier senses clearly <p 219> the entrance of his sword−point or blade into the body of his enemy. The last fact is confirmed by the students. One can clearly distinguish whether the sword has merely beaten through the skin or has sunk deeply and reached the bone. And this sensation of touch is concentrated in the _*right_ thumb, which is barely under the hilt of the sword at the point where the grip rests.

The importance of the fact that the wounder feels his success lies in the possibility it gives him, when he

wants to tell the truth, to indicate reliably whether and how far he has wounded his opponent. The importance of the testimony of the wounded man lies in its influence on determining, in cases where there were more than one concerned in the assault, which wound is to be assigned to which man. We often hear from the victim who really desires to tell the truth, ``I was quite convinced that X dealt me the deep stab in the shoulder, but he has only pushed and not stabbed me−− I did not perceive a stab." Just the same, it was X who stabbed him, and if the examining judge explains the matter to the victim, his testimony will be yet more honest.

There are still a few other significant facts.

1. It is well known that the portion of the skin which covers a bone and which is then so pulled away that it covers a fleshy part, can not easily identify the point of stimulation. Such transpositions may be made intentionally in this experiment, but they occur frequently through vigorous twists of the body. When the upper part of the body is drawn backwards, while one is sitting down, a collection of such transpositions occur and it is very hard then to localize a blow or stab. So, too, when an arm is held backward in such a way as to turn the flat of the hand uppermost. It is still more difficult to locate a wound when one part of the body is held by another person and the skin pulled aside.

2. The sensation of wetness is composed of that of cold and easy movement over surface. Hence, when we touch without warning a cold smooth piece of metal, we think that we are touching something wet. But the converse is true for we believe that we are touching something cold and smooth when it is only wet. Hence the numerous mistakes about bleeding after wounds. The wounded man or his companions believe that they have felt blood when they have only felt some smooth metal, or they have really felt blood and have taken it for something smooth and cold. Mistakes about whether there was blood or not have led to frequent confusion.

3. Repetition, and hence summation, intensifies and clarifies the <p 220> sensation of touch. As a consequence, whenever we want to test anything by touching it we do so repeatedly, drawing the finger up and down and holding the object between the fingers; for the same reason we repeatedly feel objects with pleasant exteriors. We like to move our hands up and down smooth or soft furry surfaces, in order to sense them more clearly, or to make the sensation different because of its duration and continuance. Hence it is important, every time something has to be determined through touch, to ask whether the touch occurred once only or was repeated. The relation is not the same in this case as between a hasty glance and accurate survey, for in touching, essential differences may appear.

4. It is very difficult to determine merely by touch whether a thing is straight or crooked, flat, convex or concave. Weber has shown that a glass plate drawn before the finger in such wise as to be held weakly at first, then more powerfully, then again more powerfully seems to be convex and when the reverse is done, concave. Flatness is given when the distance is kept constant.

5. According to Vierordt,[1] the motion of a point at a constant rate over a sizable piece of skin, e. g., the back of the hand from the wrist to the finger tips, gives, if not looked at, the definite impression of increasing rapidity. In the opposite direction, the definiteness is less but increases with the extent of skin covered. This indicates that mistakes may be made in such wounds as cuts, scratches, etc.

[1] K. Vierordt: Der Zeitsinn nach Versuchen. T<u:>bingen 1868.

6. The problem may arise of the reliability of impressions of habitual pressure. Weber made the earliest experiments, later verified by Fechner, showing that the sensation of weight differs a great deal on different portions of the skin. The most sensitive are the forehead, the temples, the eyelids, the inside of the forearm. The most insensitive are the lips, the trunk and the finger−nails. If piles of six silver dollars are laid on various parts of the body, and then removed, one at a time, the differences are variously felt. In order to notice a removal the following number must be taken away:

One dollar from the top of the finger,

One dollar from the sole of the foot,

Two dollars from the flat of the hand,

Two dollars from the shoulder blade,

Three dollars from the heel,

Four dollars from the back of the head,

Four dollars from the breast, <p 221>

Five dollars from the middle of the back,

Five dollars from the abdomen.

Further examinations have revealed nothing new. Successful experiments to determine differences between men and women, educated and uneducated, in the acuteness of the sense of pressure, have not been made. The facts they involve may be of use in cases of assault, choking, etc.

Topic 2. PERCEPTION AND CONCEPTION.

Section 44.

What lawyers have to consider in the transition from purely sensory impressions to intellectual conceptions of these impressions, is the possibility of later reproducing any observed object or event. Many so−called scientific distinctions have, under the impulse of scientific psychology, lost their status. Modern psychology does not see sharply−drawn boundaries between perception and memory, and suggests that the proper solution of the problem of perception is the solution of the problem of knowledge.[1]

[1] The first paragraph, pp. 78−79, is omitted in the translation.

With regard to the relation of consciousness to perception we will make the distinctions made by Fischer.[2] There are two spheres or regions of consciousness: the region of sensation, and of external perception. The former involves the inner structure of the organism, the latter passes from the organism into the objective world. Consciousness has a sphere of action in which it deals with the external world by means of the motor nerves and muscles, and a sphere of perception which is the business of the senses.

[2] E. L. Fischer: Theorie der Gesichtswahrnehmung. Mainz 1891.

External perception involves three principal functions: apprehension, differentiation, and combination. Perception in the narrower sense of the term is the simple sensory conscious apprehension of some present object stimulating our eyes. We discover by means of it what the object is, its relation to ourselves and other things, its distance from us, its name, etc.

What succeeds this apprehension is the most important thing for us lawyers, i. e. _*recognition_. Recognition indicates only that an object has sufficiently impressed a mind to keep it known and identifiable. It is indifferent what the nature of the recognized object is. According to Hume the object may be an enduring thing (``non− <p 222> interrupted and non−dependent on mind"), or it may be identical with perception itself. In the latter case the perception is considered as a logical judgment like the judgment: ``It is raining," or the

feeling that ``it is raining," and there recognition is only the recognition of a perception. Now judgments of this sort are what we get from witnesses, and what we have to examine and evaluate. This must be done from two points of view. First, from the point of view of the observer and collector of instances who is seeking to discover the principle which governs them. If this is not done the deductions that we make are at least unreliable, and in most cases, false. As Mach says, ``If once observation has determined all the facts of any natural science, a new period begins for that science, the period of deduction." But how often do we lawyers distinguish these two periods in our own work.[1]

[1] A sentence is here omitted.

The second point of importance is the presence of mistakes in the observations. The essential mistakes are classified by Schiel under two headings. Mistakes in observation are positive or negative, wrong observation or oversight. The latter occurs largely through preconceived opinions. The opponents of Copernicus concluded that the earth did not move because otherwise a stone dropped from the top of a tower would reach the ground a little to the west. If the adherents of Copernicus had made the experiment they would have discovered that the stone does fall as the theory requires. Similar oversights occur in the lawyer's work hundreds of times. We are impressed with exceptions that are made by others or by ourselves, and give up some already tried approach without actually testing the truth of the exception which challenges it. I have frequently, while at work, thought of the story of some one of the Georges, who did not like scholars and set the following problem to a number of philosophers and physicists: ``When I put a ten pound stone into a hundred pound barrel of water the whole weighs a hundred and ten pounds, but when I put a live fish of ten pounds into the barrel the whole still weighs only a hundred pounds?" Each one of the scholars had his own convincing explanation, until finally the king asked one of the foot−men, who said that he would like to see the experiment tried before he made up his mind. I remember a case in which a peasant was accused of having committed arson for the sake of the insurance. He asserted that he had gone into a room with a candle and that a long spider's web which was hanging down <p 223> had caught fire from it accidentally and had inflamed the straw which hung from the roof. So the catastrophe had occurred. Only in the second examination did it occur to anybody to ask whether spider's web can burn at all, and the first experiment showed that that was impossible.

Most experiences of this kind indicate that in recognizing events we must proceed slowly, without leaping, and that we may construct our notions only on the basis of knowledge we already possess. Saint Thomas says, ``Omnes cognitio fit secundum similitudinem cogniti in cognoscente." If this bit of wisdom were kept in mind in the examination of witnesses it would be an easier and simpler task than usual. Only when the unknown is connected with the known is it possible to understand the former. If it is not done the witness will hardly be able to answer. He nowhere finds support, or he seeks one of his own, and naturally finds the wrong one. So the information that an ordinary traveler brings home is mainly identical with what he carries away, for he has ears and eyes only for what he expects to see. For how long a time did the negro believe that disease pales the coral that he wears? Yet if he had only watched it he would have seen how foolish the notion was. How long, since Adam Smith, did people believe that extravagance helps industry, and how much longer have people called Copernicus a fool because they actually saw the sun rise and set. So J. S. Mill puts his opinions on this matter. Benneke[1] adds, ``If anybody describes to me an animal, a region, a work of art, or narrates an event, etc., I get no notion through the words I hear of the appearance of the subject. I merely have a problem set me by means of the words and signs, in the conception of the subject, and hence it depends for truth mainly upon the completeness of earlier conceptions of similar things or events, and upon the material I have imaginatively at hand. These are my perceptual capital and my power of representation."

[1] E. Benneke: Pragmatische Psychologie.

It naturally is not necessary to ask whether a narrator has ever seen the things he speaks of, nor to convince oneself in examination that the person in question knows accurately what he is talking about. At the same time, the examiner ought to be clear on the matter and know what attitude to take if he is going to deal

intelligibly with the other. I might say that all of us, educated and uneducated, have apprehended and remember definite and distinct images of all things we have seen, heard, or learned from descriptions. <p 224> When we get new information we simply attach the new image to the old, or extinguish a part of the old and put the new in its place, or we retain only a more or less vigorous breath of the old with the new. Such images go far back; even animals possess them. One day my small son came with his exciting information that his guinea pig, well known as a stupid beast, could count. He tried to prove this by removing the six young from their mother and hiding them so that she could not see what happened to them. Then he took one of the six, hid it, and brought the remaining five back to the old lady. She smelled them one after the other and then showed a good deal of excitement, as if she missed something. Then she was again removed and the sixth pig brought back; when she was restored to her brood, she sniffed all six and showed a great deal of satisfaction. ``She could count at least six." Naturally the beast had only a fixed collective image of her brood, and as one was missing the image was disturbed and incorrect. At the same time, the image was such as is created by the combination of events or circumstances. It is not far from the images of low−browed humanity and differs only in degree from those of civilized people.

The fact that a good deal of what is said is incorrect and yet not consciously untrue, depends upon the existence of these images and their association with the new material. The speaker and the auditor have different sets of images; the first relates the new material differently from a second, and so of course they can not agree.[1] It is the difficult task of the examiner so to adapt what is said as to make it appropriate to the right images without making it possible for incorrect interpretations to enter. When we have a well−known money−lender as witness concerning some unspeakable deal, a street−walker concerning some brawling in a peasant saloon, a clubman concerning a duel, a game−warden concerning poaching, the set of images of each one of these persons will be a bad foundation for new perceptions. On the other hand, it will not be difficult to abstract from them correctly. But cases of this sort are not of constant occurrence and the great trouble consists in once for all discovering what memory−images were present before the witness perceived the event in question. The former have a great influence upon the perception of the latter.

[1] Cf. H. Gross's Archiv, XV, 125.

In this connection it should not be forgotten that the retention of these images is somewhat pedantic and depends upon unimportant things. In the city hall of Graz there is a secretary with thirty−six <p 225> sections for the thirty−six different papers. The name of the appropriate journal was written clearly over each section and in spite of the clearness of the script the depositing and removing of the papers required certain effort, inasmuch as the script had to be read and could not be apprehended. Later the name of the paper was cut out of each and pasted on the secretary instead of the script, and then, in spite of the various curly and twisted letters, the habitual images of the titles were easily apprehended and their removal and return became mechanical. The customary and identical things are so habitual that they are apprehended with greater ease than more distinct objects.

Inasmuch as we can conceive only on the basis of the constancy and similarity of forms, we make these forms the essence of experience. On the other hand, what is constant and similar for one individual is not so for another, and essences of experience vary with the experiencer.

``When we behold a die of which we can see three sides at a time, seven corners, and nine edges, we immediately induce the image or schema of a die, and we make our further sense−perception accord with this schema. In this way we get a series of schemes which we may substitute for one another" (Aubert). For the same reason we associate in description things unknown to the auditor, which we presuppose in him, and hence we can make him rightly understand only if we have named some appropriate object in comparison. Conversely, we have to remember that everybody takes his comparison from his own experience, so that we must have had a like experience if we are to know what is compared. It is disastrous to neglect the private nature of this experience. Whoever has much to do with peasants, who like to make use of powerful comparisons, must first comprehend their essential life, if he is to understand how to reduce their comparisons

to correct meanings. And if he has done so he will find such comparisons and images the most distinct and the most intelligible.

Sense−perception has a great deal to do in apprehension and no one can determine the boundary where the sense activity ends and the intellectual begins. I do not recall who has made note of the interesting fact that not one of twenty students in an Egyptian museum knew why the hands of the figures of Egyptian was pictures gave the impression of being incorrect−−nobody had observed the fact that all the figures had two right hands.

I once paid a great deal of attention to card−sharping tricks and <p 226> as I acquired them, either of myself or from practiced gamblers, I demonstrated them to the young criminalists. For a long time I refused to believe what an old Greek told me: ``The more foolish and obvious a trick is, the more certain it is; people never see anything." The man was right. When I told my pupils expressly, ``Now I am cheating," I was able to make with safety a false coup, a false deal, etc. Nobody saw it. If only one has half a notion of directing the eyes to some other thing, a card may be laid on the lap, thrust into the sleeve, taken from the pocket, and God knows what else. Now who can say in such a case whether the sensory glance or the intellectual apprehension was unskilful or unpractised? According to some authorities the chief source of error is the senses, but whether something must not be attributed to that mysterious, inexplicable moment in which sensory perception becomes intellectual perception, nobody can say.

My favorite demonstration of how surprisingly little people perceive is quite simple. I set a tray with a bottle of water and several glasses on the table, call express attention to what is about to occur, and pour a little water from the bottle into the glass. Then the stuff is taken away and the astonishing question asked what have I done? All the spectators reply immediately: you have poured water into a glass. Then I ask further with what hand did I do it? How many glasses were there? Where was the glass into which I poured the water? How much did I pour? How much water was there in the glass? Did I really pour or just pretend to? How full was the bottle? Was it certainly water and not, perhaps, wine? Was it not red wine? What did I do with my hand after pouring the water? How did I look when I did it? Did you not really see that I shut my eyes? Did you not really see that I stuck my tongue out? Was I pouring the water while I did it? Or before, or after? Did I wear a ring on my hand? Was my cuff visible? What was the position of my fingers while I held the glass? These questions may be multiplied. And it is as astonishing as amusing to see how little correctness there is in the answers, and how people quarrel about the answers, and what extraordinary things they say. Yet what do we require of witnesses who have to describe much more complicated matters to which their attention had not been previously called, and who have to make their answers, not immediately, but much later; and who, moreover, may, in the presence of the fact, have been overcome by fear, astonishment, terror, etc.! I find that probing even comparatively trained wit− <p 227> nesses is rather too funny, and the conclusions drawn from what is so learned are rather too conscienceless.[1] Such introductions as: ``But you will know,"−−``Just recall this one,"−−``You wouldn't be so stupid as not to have observed whether,"−−``But my dear woman, you have eyes,"−−and whatever else may be offered in this kindly fashion, may bring out an answer, but what real worth can such an answer have?

[1] Cf. Borst u. Clapar<e!>de: Sur divers Caract<e!>res du Temoigna e. Archives des Sciences Phys. et Nat. XVII. Diehl: zum Studium der Merktahugkeit. Beitr. zur Psych. der Aussage, II, 1903

One bright day I came home from court and saw a man step out of a cornfield, remain a few instants in my field of vision, and then disappear. I felt at once that the man had done something suspicious, and immediately asked myself how he looked. I found I knew nothing of his clothes, his dress, his beard, his size, in a word, nothing at all about him. But how I would have punished a witness who should have known just as little. We shall have, in the course of this examination, frequently to mention the fact that we do not see an event in spite of its being in the field of perception. I want at this point merely to call attention to a single well−known case, recorded by Hofmann.[2] At a trial a circumstantial and accurate attempt was made to discover whether it was a significant alteration to bite a man's ear off. The court, the physician, the witnesses, etc., dealt with the

question of altering, until finally the wounded man himself showed what was meant, because his other ear had been bitten off many years before,−−but then nobody had noticed that mutilated ear.

[2] Gericht. Medizin. Vienna 1898. p. 447.

In order to know what another person has seen and apprehended we must first of all know how he thinks, and that is impossible. We frequently say of another that he must have thought this or that, or have hit upon such and such ideas, but what the events in another brain may be we can never observe. As Bois−Reymond says somewhere: ``If Laplace's ghost could build a homunculus according to the Leibnitzian theory, atom by atom and molecule by molecule, he might succeed in making it think, but not in knowing how it thinks." But if we know, at least approximately, the kind of mental process of a person who is as close as possible to us in sex, age, culture, position, experience, etc., we lose this knowledge with every step that leads to differences. We know well what great influence is exercised by the multiplicity of talents, superpositions, knowledge, and apprehensions. When we consider the qualities <p 228> of things, we discover that we never apprehend them abstractly, but always concretely. We do not see color but the colored object; we do not see warmth, but something warm; not hardness, but something hard. The concept warm, as such, can not be thought of by anybody, and at the mention of the word each will think of some particular warm object; one, of his oven at home; another, of a warm day in Italy; another of a piece of hot iron which burnt him once. Then the individual does not pay constant court to the same object. To−day he has in mind this concrete thing, to−morrow, he uses different names and makes different associations. But every concrete object I think of has considerable effect on the new apprehension; and my auditor does not know, perhaps even I myself do not, what concrete object I have already in mind. And although Berkeley has already shown that color can not be thought of without space or space without color, the task of determining the concrete object to which the witness attaches the qualities he speaks of, will still be overlooked hundreds of times.

It is further of importance that everybody has learned to know the object he speaks about through repetition, that different relations have shown him the matter in different ways. If an object has impressed itself upon us, once pleasurably and once unpleasantly, we can not derive the history and character of the present impression from the object alone, nor can we find it merely in the synthetic memory sensations which are due to the traces of the former coalescing impressions. We are frequently unable, because of this coalescing of earlier impressions, to keep them apart and to study their effect on present impressions. Frequently we do not even at all know why this or that impression is so vivid. But if we are ignorant with regard to what occurs in ourselves, how much can we know about others?

Exner calls attention to the fact that it is in this direction especially, that the ``dark perceptions" play a great r<o^>le. ``A great part of our intelligence depends on the ability of these `dark perceptions' to rise without requiring further attention, into the field of consciousness. There are people, e. g., who recognize birds in their flight without knowing clearly what the characteristic flight for any definite bird may be. Others, still more intelligent, know at what intervals the flyers beat their wings, for they can imitate them with their hands. And when the intelligence is still greater, it makes possible a correct description in words."

Suppose that in some important criminal case several people, <p 229> of different degrees of education and intelligence, have made observations. We suppose that they all want to tell the truth, and we also suppose that they have observed and apprehended their objects correctly. Their testimonies, nevertheless, will be very different. With the degree of intelligence rises the degree of effect of the ``dark subconscious perceptions." They give more definite presentation and explanation of the testimony; they turn bare assertions into well−ordered perceptions and real representations. But we generally make the mistake of ascribing the variety of evidence to varying views, or to dishonesty.

To establish the unanimity of such various data, or to find out whether they have such unanimity, is not easy. The most comfortable procedure is to compare the lesser testimonies with those of the most intelligent of the witnesses. As a rule, anybody who has a subconscious perception of the object will be glad to bring it out if he

is helped by some form of expression, but the danger of suggestion is here so great that this assistance must be given only in the rarest of cases. The best thing is to help the witness to his full evidence gradually, at the same time taking care not to suggest oneself and thus to cause agreement of several testimonies which were really different but only appeared to look contradictory on account of the effect of subconscious perceptions. The very best thing is to take the testimony as it comes, without alteration, and later on, when there is a great deal of material and the matter has grown clearer, to test the stuff carefully and to see whether the less intelligent persons gave different testimonies through lack of capacity in expression, or because they really had perceived different things and had different things to say.

This is important when the witnesses examined are experts in the matter in which they are examined. I am convinced that the belief that such people must be the best witnesses, is false, at least as a generalization. Benneke (loco cit.), has also made similar observations. ``The chemist who perceives a chemical process, the connoisseur a picture, the musician a symphony, perceive them with more vigorous attention than the layman, but the actual attention may be greater with the latter." For our own affair, it is enough to know that the judgment of the expert will naturally be better than that of the layman; his apprehension, however, is as a rule one−sided, not so far−reaching and less uncolored. It is natural that every expert, especially when he takes his work seriously, should find most interest in that side of an event with which his <p 230> profession deals. Oversight of legally important matters is, therefore, almost inevitable. I remember how an eager young doctor was once witness of an assault with intent to kill. He had seen how in an inn the criminal had for some time threatened his victim with a heavy porcelain match−tray. ``The os parietale may here be broken," the doctor thought, and while he was thinking of the surgical consequences of such a blow, the thing was done and the doctor had not seen how the blow was delivered, whether a knife had been drawn by the victim, etc. Similarly, during an examination concerning breaking open the drawer of a table, the worst witness was the cabinet−maker. The latter was so much interested in the foreign manner in which the portions of the drawer had been cemented and in the curious wood, that he had nothing to say about the legally important question of how the break was made, what the impression of the damaging tool was, etc. Most of us have had such experiences with expert witnesses, and most of us have also observed that they often give false evidence because they treat the event in terms of their own interest and are convinced that things must happen according to the principles of their trades. However the event shapes itself, they model it and alter it so much that it finally implies their own apprehension.

``Subconscious perceptions," somewhat altered, play another r<o^>le, according to Exner, in so−called orientation. If anybody is able to orient himself, i. e., know where he is at any time and keep in mind the general direction, it is important to be aware of the fact when he serves as witness, for his information will, in consequence, take a different form and assume a different value. Exner says of himself, that he knows at each moment of his climb of the Marcus' tower in what direction he goes. As for me, once I have turned around, I am lost. Our perceptions of location and their value would be very different if we had to testify concerning relations of places, in court. But hardly anybody will assure the court that in general he orients himself well or ill.

As Exner says, ``If, when walking, I suddenly stop in front of a house to look at it, I am definitely in possession, also, of the feeling of its distance from where I left the road−−the unconscious perception of the road beyond is here at work." It might, indeed, be compared with pure subconsciousness in which series of processes occur without our knowing it.

But local orientation does not end with the feeling for place. It is at work even in the cases of small memories of location, e. g., <p 231> in learning things by heart, in knowing on what page and on what line anything is printed, in finding unobserved things, etc. These questions of perception−orientation are important, for there are people all of whose perceptions are closely related to their sense of location. Much may be learned from such people by use of this specialty of theirs, while oversight thereof may render them hopeless as witnesses. How far this goes with some people−−as a rule people with a sense of location are the more intelligent−−I saw some time ago when the Germanist Bernhardt Seuffert told me that when he did not know how anything

is spelled he imagined its appearance, and when that did not help he wrote both the forms between which he was vacillating and then knew which one was the correct one. When I asked him whether the chirographic image appeared printed or written and in what type, he replied significantly enough, ``As my writing−teacher wrote it." He definitely localized the image on his writing book of many years ago and read it off in his mind. Such specialties must be remembered in examining witnesses.

In conclusion, there is a word to say concerning Cattell's[1] investigations of the time required for apprehension. The better a man knows the language the more rapidly can he repeat and read its words. It is for this reason that we believe that foreigners speak more rapidly than we. Cattell finds this so indubitable, that he wants to use speed as a test in the examinations in foreign languages.

[1] J. M. Cattell: <U:>ber die Zeit der Erkennung u. Benemlung von Schrift etc. (in Wundt's: Philosophischen Studien II, 1883).

The time used in order to identify a single letter is a quarter of a second, the time to pronounce it one−tenth of a second. Colors and pictures require noticeably more, not because they are not recognized, but because it is necessary to think what the right name is. We are much more accustomed to reading words.

These observations might be carried a step further. The more definitely an event to be described is conceived, the clearer the deduction and the more certain the memory of it, the more rapidly may it be reproduced. It follows that, setting aside individual idiosyncrasies, the rapidity of speech of a witness will be of importance when we want to know how much he has thought on a question and is certain what he is going to say. It is conceivable that a person who is trying to remember the event accurately will speak slowly and stutteringly, or at least with hesitation at the moment. The same will occur if he tries to conceive of various <p 232> possibilities, to eliminate some, and to avoid contradiction and improbability. If, however, the witness is convinced and believes truly what he is telling, so that he may go over it in his mind easily and without interruption, he will tell his story as quickly as he can. This may indeed be observed in public speakers, even judges, prosecutors, and defense; if anyone of them is not clear with regard to the case he represents, or not convinced of its correctness, he will speak slowly; if the situation is reversed he will speak rapidly. Court and other public stenographers confirm this observation.

Topic 3. IMAGINATION. Section 45.

The things witnesses tell us have formerly existed in their imaginations, and the _*how_ of this existence determines in a large degree the *quale* of what they offer us. Hence, the nature of imagination must be of interest to us, and the more so, as we need not concern ourselves with the relation between being and imagination. It may be that things may exist in forms quite different from those in which we know them, perhaps even in unknowable forms. The idealist, according to some authorities, has set this possibility aside and given a scientific reply to those who raised it.

So far as we lawyers are concerned, the ``scientific reply" does not matter. We are interested in the reliability of the imagination and in its identification with what we assume to exist and to occur. Some writers hold that sensory objects are in sense−perception both external and internal, external with regard to each other, and internal with regard to consciousness. Attention is called to the fact that the distinction between image and object constitutes no part of the act of perception. But those who remark this fact assume that the act does contain an image. According to St. Augustine the image serves as the knowledge of the object; according to Erdmann the object is the image objectified.

Of great importance is the substitutional adequacy of images. E. g., I imagine my absent dog, Bismarck's dog, whom I know only pictorially, and finally, the dog of Alcibiades, whose appearance is known only by the fact that he was pretty and that his master had cut off his tail. In this case, the representative value of these images will be definite, for everybody knows that I can imagine my own dog very correctly, that the image of

Bismarck's beast will also be comparatively good inasmuch as this animal has been fre− <p 233> quently pictured and described, while the image of Alcibiades' dog will want much in the way of reliability−−although I have imagined this historic animal quite vividly since boyhood. When, therefore, I speak of any one of these three animals everybody will be able properly to value the correctness of my images because he knows their conditions. When we speak with a witness, however, we rarely know the conditions under which he has obtained his images, and we learn them only from him. Now it happens that the description offered by the witness adds another image, i. e., our own image of the matter, and this, and that of the witness, have to be placed in specific relation to each other. Out of the individual images of all concerned an image should be provided which implies the image of the represented event. Images can be compared only with images, or images are only pictures of images.[1]

[1] Cf. Windelband: ``Pr<a:>ludien."

The difficulty of this transmutation lies fundamentally in the nature of representation. Representation can never be identical with its object. Helmholtz has made this most clear: ``Our visions and representations are effects; objects seen and represented have worked on our nervous system and on our consciousness. The nature of each effect depends necessarily upon the nature of its cause, and the nature of the individual upon whom the cause was at work. To demand an image which should absolutely reproduce its object and therefore be absolutely true, would be to demand an effect which should be absolutely independent of the nature of that object on which the effect is caused. And this is an obvious contradiction."

What the difference between image and object consists of, whether it is merely formal or material, how much it matters, has not yet been scientifically proved and may never be so. We have to assume only that the validity of this distinction is universally known, and that everybody possesses an innate corrective with which he assigns proper place to image and object, i. e., he knows approximately the distinction between them. The difficulty lies in the fact that not all people possess an identical standard, and that upon the creation of the latter practically all human qualities exert an influence. This variety in standards, again, is double−edged. On the one side it depends on the essence of image and of object, on the other it depends on the alteration which the image undergoes even during perception as well as during all the ensuing time. Everybody knows this distinction. Whoever has seen anything under certain circumstances, or during a certain period of his life, may frequently <p 234> produce an image of it varying in individual characteristics, but in its general character constant. If he sees it later under different conditions, at a different age, when memory and imaginative disposition have exercised their alterative influence, image and object fail to correspond in various directions. The matter is still worse with regard to images of things and events that have never been seen. I can imagine the siege of Troy, a dragon, the polar night and Alexander the Great, but how different will the image be from the object!

This is especially obvious when we have perceived something which did not appear to us altogether correct. We improve the thing, i. e., we study how it might have been better, and we remember it as improved; then the more frequently this object as imagined recurs, the more fixed its form becomes, but not its actual form, only its altered form. We see this with especial clearness in the case of drawings that in some way displease us. Suppose I do not like the red dress of a woman in some picture and I prefer brown. If later I recall the picture the image will become progressively browner and browner, and finally I see the picture as brown, and when I meet the real object I wonder about the red dress.[1]

[1] H. Gross: Korregierte Vorstellungen. In H. Gross's Archiv X, 109.

We get this situation in miniature each time we hear of a crime, however barren the news may be,−−no more than a telegraphic word. The event must naturally have some degree of importance, because, if I hear merely that a silver watch has been stolen, I do not try to imagine that situation. If, however, I hear that near a hostelry in X, a peasant was robbed by two traveling apprentices I immediately get an image which contains not only the unknown region, but also the event of the robbery, and even perhaps the faces of those concerned.

It does not much matter that this image is completely false in practically every detail, because in the greater number of cases it is corrected. The real danger lies in the fact that this correction is frequently so bad and often fails altogether and that, in consequence, the first image again breaks through and remains the most vigorous.[2] The vigor is the greater because we always attach such imagination to something actual or approximately real, and inasmuch as the latter thing is either really seen, or at least energetically imagined, the first image acquires renewed power of coming up. According to Lipps, ``Reproductive images <p 235> presuppose dispositions. Dispositions ensue upon perceptions that they imply; still there are reproductive images and imagined wholes which imply no preceding perceptions. This contradiction is solved when dispositions are contained in other things at the same time. A finite number of dispositions may in this way be also infinite.... Dispositions are transformed power itself, power transformed in such a way as to be able to respond actively to inner stimulations."

[2] C. de Lagrave: L'Autosuggestion Naturelle. Rev. d'Hypnot. 1889, XIV, 257.

The process is similar in the reproduction of images during speech. The fact that this reproduction is not direct but depends on the sequence of images, leads to the garrulity of children, old men, and uneducated people, who try to present the whole complex of relations belonging to any given image. But such total recall drives the judge to despair, not only because he loses time, but because of the danger of having the attention turned from important to unimportant things. The same thing is perceived in judicial documents which often reveal the fact that the dictator permitted himself to be led astray by unskilful witnesses, or that he had himself been responsible for abstruse, indirect memories. The real thinker will almost always be chary of words, because he retains, from among the numberless images which are attached to his idea, only those most closely related to his immediate purpose. Hence good protocols are almost always comparatively short. It is even as instructive as amusing to examine certain protocols, with regard to what ought to be omitted, and then with regard to the direct representations, i. e., to everything that appertains to the real illumination of the question. It is astounding how little of the latter thing is indicated, and how often it enters blindly because what was important has been forgotten and lost.

Of course, we must grant that the essence of representation involves very great difficulties. By way of example consider so ordinary a case as the third dimension. We are convinced that according to its nature it is much more complex than it seems to be. We are compelled to believe that distance is not a matter of sensation and that it requires to be explained.[1]

[1] Several sentences are here omitted.

Psychologists indicate that the representation of the third dimension would be tremendously difficult without the help of experience. But experience is something relative, we do not know how much experience any man possesses, or its nature. Hence, we never can know clearly to what degree a man's physical vision is correct if <p 236> we do not see other means of verification. Consider now what is required in the assumption of the idea of the fourth dimension. Since its introduction by Henry More, this idea should quite have altered our conception of space. But we do not know how many cling to it unconsciously, and we should make no mistake if we said that nobody has any knowledge of how his neighbor perceives space.[1]

[1] Cf. E. Storch: <U:>ber des r<a:>umliche Sehen, in Ztschrft. v. Ebbinghaus u. Nagel XXIX, 22.

Movement is another thing difficult to represent or imagine. You can determine for yourself immediately whether you can imagine even a slightly complicated movement. I can imagine one individual condition of a movement after another, sequentially, but I can not imagine the sequence. As Herbart says somewhere, a successive series of images is not a represented succession. But if we can not imagine this latter, what do we imagine is not what it ought to be. According to Stricker,[2] the representation of movement is a *quale* which can not be given in terms of any other sensory quality, and no movement can be remembered without the brain's awakening a muscle−movement. Experience verifies this theory. The awakening of the muscular sense

is frequently obvious whenever movement is thought of, and we may then perceive how, in the explanation or description of a movement, the innervation which follows the image in question, occurs. This innervation is always true. It agrees at least with what the witness has himself perceived and now tries to renew in his story. When we have him explain, for example, how some man had been choked, we may see movements of his hands which, however slight and obscure, still definitely indicate that he is trying to remember what he has seen, and this irrelevantly of what he is saying. This makes it possible to observe the alterations of images in the individual in question, an alteration which always occurs when the images are related to movements.

[2] S. Stricker: Studien <u:>ber die Bewegungsvorstellungen. T<u:>bingen 1868.

It follows further from the fact that movements are difficult to represent that the witness ought not to be expected accurately to recall them. Stricker says that for a long time he could not image a snow−fall, and succeeded only in representing one single instant of it. Now what is not capable of representation, can not well be recalled, and so we discover that it merely causes trouble to ask the witness to describe point by point even a simple sequence. The witness has only successive images, and even if the particular images are correct, <p 237> he has nothing objective for the succession itself, nothing rooted in the sequence. He is helped, merely, by the logic of events and his memory−−if these are scanty, the succession of images is scanty, and therefore the reproduction of the event is inadequate. Hence this scantiness is as little remarkable as the variety of description in various witnesses, a variety due to the fact that the sequentialization is subjective.

Drawing is a confirmation of the fact that we represent only a single instant of motion, for a picture can never give us a movement, but only a single state within that movement. At the same time we are content with what the picture renders, even when our image contains only this simple moment of movement. ``What is seen or heard, is immediately, in all its definiteness, content of consciousness" (Schuppe)−−but its movement is not.

The influence of time upon images is hardly indifferent. We have to distinguish the time necessary for the construction of an image, and the time during which an image lasts with uniform vividness. Maudsley believes the first question difficult to answer. He leans on Darwin, who points out that musicians play as quickly as they can apprehend the notes. The question will affect the lawyer in so far as it is necessary to determine whether, after some time, an image of an event may ensue from which it is possible to infer back to the individuality of the witness. No other example can be used here, because on the rocky problem of the occurrence of images are shattered even the regulative arts of most modern psychophysics.

The second problem is of greater significance. Whether any practical use of its solution can be made, I can not say, but it urges consideration. Exner has observed that the uniform vividness of an image lasts hardly a second. The image as a whole does not disappear in this time, but its content endures unchanged for so long at most. Then it fades in waves. The correctness of this description may be tested by anybody. But I should like to add that my observations of my own images indicate that in the course of a progressive repetition of the recall of an image its content is not equally capable of reproduction. I believe, further, that no essential leaps occur in this alteration of the content of an idea, but that the alteration moves in some definite direction. If, then, I recall the idea of some object successively, I will imagine it not at one time bigger, then smaller, then again bigger, etc.; on the contrary, the series of images will be such that each new image will be either progressively bigger or progressively smaller. <p 238>

If this observation of mine is correct and the phenomenon is not purely personal, Exner's description becomes of great value in examination, which because of its length, requires the repeated recall of standardizing images, and this in its turn causes an alteration in the ideational content. We frequently observe that a witness persuades himself into the belief of some definite idea in the course of his examination, inasmuch as with regard to some matter he says more and more definite things at the end than at the beginning. This may possibly be contingent on the alteration of frequently recalled ideas. One could make use of the process which is involved in the reproduction of the idea, by implying it, and so not being compelled to return endlessly to something already explained.

How other people construct their ideas, we do not, as we have seen, know, and the difficulty of apprehending the ideas or images of other people, many authorities clearly indicate.[1]

[1] Cf. N<a:>cke in Gross's Archiv VII, 340.

Topic 4. INTELLECTUAL PROCESSES.

Section 46. (a) General Considerations.

Lichtenberg said somewhere, ``I used to know people of great scholarship, in whose head the most important propositions were folded up in excellent order. But I don't know what occurred there, whether the ideas were all mannikins or all little women−− there were no results. In one corner of the head, these gentlemen put away saltpeter, in another sulphur, in a third charcoal, but these did not combine into gunpowder. Then again, there are people in whose heads everything seeks out and finds everything else, everything pairs off with everything else, and arranges itself variously." What Lichtenberg is trying to do is to indicate that the cause of the happy condition of the last−named friends is imagination. That imagination is influential, is certain, but it is equally certain that the human understanding is so different with different people as to permit such phenomena as Lichtenberg describes. I do not want to discuss the quantity of understanding. I shall deal, this time, with its quality, by means of which the variety of its uses may be explained. It would be a mistake to think of the understanding as capable of assuming different forms. If it were it would be possible to construct from the concept understanding a group of different powers whose common quality would come to us off− <p 239> hand. But with regard to understanding we may speak only of more or less and we must think of the difference in effect in terms only of the difference of the forms of its application. We see the effects of the understanding alone, not the understanding itself, and however various a burning city, cast iron, a burn, and steaming water may be, we recognize that in spite of the difference of effect, the same fire has brought about all these results. The difference in the uses of the understanding, therefore, lies in the manner of its application. Hence these applications will help us, when we know them, to judge the value of what they offer us. The first question that arises when we are dealing with an important witness who has made observations and inferences, is this: ``How intelligent is he? and what use does he make of his intelligence? That is, What are his processes of reasoning?"

I heard, from an old diplomat, whose historic name is as significant as his experience, that he made use of a specific means to discover what kind of mind a person had. He used to tell his subjects the following story: ``A gentleman, carrying a small peculiarly−formed casket, entered a steam car, where an obtrusive commercial traveler asked him at once what was contained in the casket. `My Mungo is inside!' `Mungo? What is that?' `Well, you know that I suffer from delirium tremens, and when I see the frightful images and figures, I let my Mungo out and he eats them up.' `But, sir, these images and figures do not really exist.' `Of course they don't really exist, but my Mungo doesn't really exist, either, so it's all right!' "

The old gentleman asserted that he could judge of the intelligence of his interlocutor by the manner in which the latter received this story.

Of course it is impossible to tell every important witness the story of Mungo, but something similar may be made use of which could be sought out of the material in the case. Whoever has anything worthy the name of practice will then be able to judge the manner of the witness's approach, and especially the degree of intelligence he possesses. The mistake must not be made, however, that this requires splendid deductions; it is best to stick to simple facts. Goethe's golden word is still true: ``The greatest thing is to understand that all fact is theory . . . do not look behind phenomena; they are themselves the doctrine." We start, therefore, with some simple fact which has arisen in the case and try to discover what the witness will do with it. It is not difficult; you may know a thing badly in a hundred ways, but you know it well in only one way. If <p 240> the witness handles the fact properly, we may trust him. We learn, moreover, from this handling how far the man may be objective. His perception as witness means to him only an experience, and the human mind may

not collect experiences without, at the same time, weaving its speculations into them. But though everyone does this, he does it according to his nature and nurture. There is little that is as significant as the manner, the intensity, and the direction in and with which a witness introduces his speculation into the story of his experience. Whole sweeps of human character may show themselves up with one such little explanation. It is for this reason that Kant called the human understanding architectonic; it aims to bring together all its knowledge under one single system, and this according to fixed rules and systems defined by the needs of ordinary mortals. Only the genius has, like nature, his own unknown system. And we do not need to count on this rarest of exceptions.

The people who constitute our most complicated problems are the average, and insignificant members of the human race. Hume cited the prophet Alexander quite justly. Alexander was a wise prophet, who selected Paphlagonis as the first scene of his deception because the people there were extraordinarily foolish and swallowed with pleasure the coarsest of swindles. They had heard earlier of the genuineness and power of the prophet, and the smart ones laughed at him, the fools believed and spread his faith, his cause got adherents even among educated people, and finally Marcus Aurelius himself paid the matter so much attention as to rest the success of a military enterprise on a prophecy of Alexander's. Tacitus narrates how Vespasian cured a blind man by spitting on him, and the story is repeated by Suetonius.

We must never forget that, however great a foolishness may be, there is always somebody to commit it. It is Hume, again, I think, who so excellently describes what happens when some inconceivable story is told to uncritical auditors. Their credulity increases the narrator's shamelessness; his shamelessness convinces their credulity. Thinking for yourself is a rare thing, and the more one is involved with other people in matters of importance, the more one is convinced of the rarity. And yet, so little is demanded in thinking. ``To abstract the red of blood from the collective impression, to discover the same concept in different things, to bring together under the same notion blood and beer, milk and snow,−−animals do not do this; it is thinking."[1] I might suggest that in the first <p 241> place, various animals are capable of something of the sort, and in the second place, that many men are incapable of the same thing. The lawyer's greatest of all mistakes is always the presupposition that whoever has done anything has also thought about doing it and while he was doing it. This is especially the case when we observe that many people repeatedly speak of the same event and drive us to the opinion that there must be some intelligent idea behind it,−−but however narrow a road may be, behind it there may be any number of others in series.

[1] L. Geiger: Der Ursprung der Sprache. Stuttgart 1869.

We also are bound to be mistaken if we presuppose the lack of reason as a peculiarity of the uneducated only, and accept as well thought−out the statements of people who possess academic training. But not everybody who damns God is a philosopher, and neither do academic persons concern themselves unexceptionally with thinking. Concerning the failure of our studies in the high− schools and in the gymnasia, more than enough has been written, but Helmholtz, in his famous dissertation, ``Concerning the Relation of the Natural Sciences to the Whole of Knowledge," has revealed the reason for the inadequacy of the material served up by gymnasia and high−schools. Helmholtz has not said that the university improves the situation only in a very small degree, but it may be understood from his words. ``The pupils who pass from our grammar−schools to exact studies have two defects; 1. A certain laxity in the application of universally valid laws. The grammatical rules with which they have been trained, are as a matter of fact, buried under series of exceptions; the pupils hence are unaccustomed to trust unconditionally to the certainty of a legitimate consequence of some fixed universal law. 2. They are altogether too much inclined to depend upon authority even where they can judge for themselves."

Even if Helmholtz is right, it is important for the lawyer to recognize the distinction between the witness who has the gymnasium behind him and the educated man who has helped himself without that institution. Our time, which has invented the Ph. D., which wants to do everything for the public school and is eager to cripple the classical training in the gymnasium, has wholly forgotten that the incomparable value of the latter does not

lie in the minimum of Latin and Greek which the student has acquired, but in the disciplinary intellectual drill contained in the grammar of the ancient tongues. It is superfluous to make fun of the fact that the technician writes on his visiting cards: Stud. Eng. or Stud. Mech. and can not <p 242> pronounce the words the abbreviations stand for, that he becomes Ph. D. and can not translate his title,−−these are side issues. But it is forgotten that the total examination in which the public school pupil presents his hastily crammed Latin and Greek, never implies a careful training in his most impressionable period of life. Hence the criminalist repeatedly discovers that the capacity for trained thinking belongs mainly to the person who has been drilled for eight years in Greek and Latin grammar. We criminalists have much experience in this matter.

Helmholtz's first point would, for legal purposes, require very broad interpretation of the term, ``universally valid laws,'' extending it also to laws in the judicial sense of the word. The assertion is frequently made that laws are passed in the United States in order that they might not be obeyed, and political regulations are obeyed by the public for, at most, seven weeks. Of course, the United States is no exception; it seems as if the respect for law is declining everywhere, and if this decline occurs in one field no other is likely to be free from it. A certain subjective or egoistic attitude is potent in this regard, for people in the main conceive the law to be made only for others; they themselves are exceptions. Narrow, unconditional adherence to general norms is not modern, and this fact is to be seen not only in the excuses offered, but also in the statements of witnesses, who expect others to follow prescriptions approximately, and themselves hardly at all. This fact has tremendous influence on the conceptions and constructions of people, and a failure to take it into consideration means considerable error.

Not less unimportant is the second point raised in the notion of ``authority.'' To judge for himself is everybody's business, and should be required of everybody. Even if nobody should have the happy thought of making use of the better insight, the dependent person who always wants to go further will lead himself into doubtful situations. The three important factors, school, newspaper, and theater, have reached an extraordinary degree of power. People apperceive, think, and feel as these three teach them, and finally it becomes second nature to follow this line of least resistance, and to seek intellectual conformity. We know well enough what consequences this has in law, and each one of us can tell how witnesses present us stories which we believe to rest on their own insight but which show themselves finally to depend upon the opinion of some other element. We frequently base our constructions upon the remarkable and convincing unanimity of such witnesses when upon <p 243> closer examination we might discover that this unanimity has a single source. If we make this discovery it is fortunate, for only time and labor have then been lost and no mistake has been committed. But if the discovery is not made, the unanimity remains an important, but really an unreliable means of proof.

Section 47. (b) The Mechanism of Thinking.

Since the remarkable dissertation of W. Ostwald,[1] on Sept. 20, 1905, we have been standing at a turning point which looks toward a new view of the world. We do not know whether the ``ignorabimus'' of some of the scientists will hold, or whether we shall be able to think everything in terms of energy. We merely observe that the supposedly invincible principles of scientific materialism are shaken.

[1] W. Ostwald: Die <U:>berwindung des wissenschaftlichen Materialismus.

Frederick the Great, in a letter to Voltaire, says something which suggests he was the first to have thought of the purely mechanical nature of thought. Cabanis had said briefly, that the brain secretes thought as the liver bile. Tyndall expressed this conception more cautiously, and demanded merely the confession that every act of consciousness implies a definite molecular condition of the brain, while Bois−Reymond declared that we could not explain certain psychical processes and events by knowledge of the material processes in the brain. ``You shall make no picture or comparison, but see as directly as the nature of our spirit will permit,'' Ostwald tells us, and it is well to stick to this advice. We need neither to cast aside the mechanical view of the world nor to accept energism; neither of them is required. But according to the teachings of the latter, we shall be

enabled to recognize the meaning of natural law in the determination of how actual events are conditioned by possible ones. And thus we shall see that the form that all natural laws turn to expresses the mediation of an invariable, a quantity that remains unchangeable even when all the other elements in the formula of a possible event alter within the limits defined by the law.[2]

[2] A. H<o:>fler: Psychologie. Vienna 1897.

Every science must provide its own philosophy, and it is our duty to know properly and to understand clearly how far we may perceive connections between the physical qualities of any one of our witnesses and his psychic nature. We will draw no inferences ourselves, but we will take note of what does not explain itself and apply <p 244> to experts to explain what we can not. This is especially necessary where the relation of the normal to the abnormal becomes a question.

The normal effects to be spoken of are very numerous, but we shall consider only a few. The first is the connection of symbol and symbolized. ``The circumstance that the symbol, on its side of the union of the two, becomes perfectly clear while the symbolized object is rather confused, is explained by the fact that the symbol recalls its object more quickly than the object the symbol; e.g., the tool recalls its use more quickly than the purpose its instrument. Name and word recall more quickly, reliably, and energetically the objects they stand for than do the objects their symbols."[1] This matter is more important than it looks at first glance, inasmuch as the particles of time with which we are dealing are greater than those with which modern psychologists have to deal,−−so large indeed, that they may be perceived in practice. We lay stress during the examination, when we are in doubt about the correctness of the expected answer, upon the promptness and rapidity with which it is given. Drawn out, tentative, and uncertain answers, we take for a sign that the witness either is unable or unwilling to give his replies honestly. If, however, psychologically there are real reasons for variation in the time in which an answer is given, reasons which do not depend on its correctness, we must seek out this correctness. Suppose that we have before us a case in which the name awakens more quickly and reliably the idea of the person to whom it belongs than conversely. This occurs to any one of us, and often we can not remember the name of even a close friend for a greater or shorter period. But we very rarely find that we do not think of the appearance of the individual whose name we hear mentioned. But it would be wrong to relate this phenomenon to certain qualities which contradict it only apparently. E. g., when I examine old statutes which I myself have worked with and review the names of the series, I recall that I had something to do with this Jones, Smith, Black, or White, and I recall what the business was, but I do not recall their appearance. The reason is, first of all, the fact that during the trial I did not care about the names which served as a means of distinguishing one from the other, and they might, for that purpose, have been *a*, *b*, *c*, etc. Hence, the faces and names were not as definitely associated as they ordinarily are. Moreover, _*this_ failure to recall is a substitution for each other of the many tanti quanti that we take up in our daily routine. When we have <p 245> had especial business with any particular individual we do remember his face when his name is mentioned.

[1] Volkmar: Psychologie. C<o:>then 1875.

If, then, a witness does not quickly recall the name of something he is thinking of, but identifies it immediately when the name is given him, you have a natural psychological event which itself has no bearing on the truth or falsity of his testimony.

The same relation is naturally to be found in all cases of parallel phenomena, i. e., names, symbols, definitions, etc. It applies, also, to the problem of the alteration in the rapidity of psychical processes with the time of the day. According to Bechterew and Higier there is an increase in psychical capacity from morning to noon, then a dropping until five o'clock in the afternoon, then an increase until nine o'clock in the evening, and finally a sinking until twelve o'clock midnight. There is, of course, no doubt that these investigators have correctly collected their material; that their results shall possess general validity is, however, not so certain. The facts are such that much depends, not only on the individual character, but also on the instant of

examination. One hears various assertions of individuals at times when they are most quick to apprehend and at their best, and hence it is hardly possible to draw a general rule from such phenomena. One may be wide awake in the morning, another in the forenoon, a third at night, and at each time other people may be at their worst. In a similar fashion, the psychic disposition varies not only during the day, but from day to day. So far as my observations go the only thing uncontradicted is the fact that the period between noon and five o'clock in the afternoon is not a favorable one. I do not believe, however, that it would be correct to say that the few hours after the noon dinner are the worst in the day, for people who eat their dinners at about four or five o'clock assure me that from one to five in the afternoon, they cannot work so well. These facts may have a value for us in so far as we can succeed in avoiding the trial of important cases which require especial consideration during the time mentioned.

Section 48. (c) The Subconscious.

It is my opinion that the importance of unconscious operations[1a] in legal procedure is undervalued. We could establish much that is significant concerning an individual whose unconscious doings we knew. For, as a rule, we perform unconsciously things that <p 246> are deeply habitual, therefore, first of all what everybody does−− walk, greet your neighbor, dodge, eat, etc.; secondly, we perform unconsciously things to which we have become accustomed in accordance with our especial characters.[1] When, during my work, I rise, get a glass of water, drink it, and set the glass aside again, without having the slightest suspicion of having done so, I must agree that this was possible only in my well−known residence and environment, and that it was possible to nobody else, not so familiar. The coachman, perhaps, puts the horses into the stable, rubs them down, etc., and thinks of something else while doing so. He has performed unconsciously what another could not. It might happen that I roll a cigarette while I am working, and put it aside; after awhile I roll a second and a third, and sometimes I have four cigarettes side by side. I needed to smoke, had prepared a cigarette, and simply because I had to use my hands in writing, etc., I laid the cigarette aside. In consequence, the need to smoke was not satisfied and the process was repeated. This indicates what complicated things may be unconsciously performed if only the conditions are well−known; but it also indicates what the limits of unconscious action are: e. g., I had not forgotten what would satisfy my need to smoke, nor where my cigarette paper was, nor how to make a cigarette, but I had forgotten that I had made a cigarette without having smoked it. The activities first named have been repeated thousands of times, while the last had only just been performed and therefore had not become mechanical.[2]

[1a] Th. Lipps: Der Begriff des Unbewnssten in der Psychologie. M<u:>nchen 1896.

[1] Cf. Symposium on the Subconscious. Journal of Abnormal Psychology.

[2] Cf. H. Gross's Archiv, II, 140.

Lipps calls attention to another instance: ``It may be that I am capable of retaining every word of a speech and of observing at the same time the expression which accompanies the speech. I might be equally able to trace a noise which occurs on the street and still to pay sufficient attention to the speech. On the other hand, I should lose the thread of the speech if I were required at the same time to think of the play of feature and the noise. Expressed in general terms, idea A may possibly get on with idea B and even idea C; but B and C together make A impossible. This clearly indicates that B and C in themselves have opposed A and inhibited it in some degree, but that only the summation of their inhibition could serve really to exclude A." This is certainly correct and may perhaps be more frequently made use of when it is necessary to judge how much an individual would have done at one and the <p 247> same time, and how much he would have done unconsciously. An approximation of the possibilities can always be made.

Such complicated processes go down to the simplest operations. Aubert indicates, for example, that in riding a horse at gallop you jump and only later observe whether you have jumped to the right or the left. And the physician Forster told Aubert that his patients often did not know how to look toward right or left. At the same

time, everybody remembers how when he is doing it unconsciously, and it may often be observed that people have to make the sign of the cross, or the gesture of eating in order to discover what is right and what left, although they are unconsciously quite certain of these directions. Still broader activities are bound up with this unconscious psychosis, activities for us of importance when the accused later give us different and better explanations than at the beginning, and when they have not had the opportunity to study the case out and make additional discoveries, or to think it over in the mean time. They then say honestly that the new, really probable exposition has suddenly occurred to them. As a rule we do not believe such statements, and we are wrong, for even when this sudden vision appears improbable and not easily realizable, the witnesses have explained it in this way only because they do not know the psychological process, which, as a matter of fact, consisted of subconscious thinking.

The brain does not merely receive impressions unconsciously, it registers them without the co−operation of consciousness, works them over unconsciously, awakens the latent residue without the help of consciousness, and reacts like an organ endowed with organic life toward the inner stimuli which it receives from other parts of the body. That this also influences the activity of the imagination, Goethe has indicated in his statement to Schiller: ``Impressions must work silently in me for a very long time before they show them selves willing to be used poetically."

In other respects everybody knows something about this unconscious intellectual activity. Frequently we plague ourselves with the attempt to bring order into the flow of ideas−−and we fail. Then the next time, without our having thought of the matter in the interval, we find everything smooth and clear. It is on this fact that the various popular maxims rest, e. g., to think a thing over, or to sleep on it, etc. The unconscious activity of thought has a great share in what has been thought out.

A very distinctive r<o^>le belongs to the coincidence of conscious <p 248> attention with unconscious. An explanation of this process will help us, perhaps, to explain many incomprehensible and improbable things. ``Even the unconscious psychic activities,−−going up and down, smoking, playing with the hands, etc. conversation,−− compete with the conscious or with other unconscious activities for psychic energy. Hence, a suddenly−appearing important idea may lead us to stop walking, to remain without a rule of action, may make the smoker drop his smoking, etc." The explanation is as follows: I possess, let us say, 100 units of psychic energy which I might use in attention. Now we find it difficult to attend for twenty seconds to one point, and more so to direct our thought−energy to one thing. Hence I apply only, let us say, 90 units to the object in question, and apply 10 units to the unconscious play of ideas, etc. Now, if the first object suddenly demands even more attention, it draws off the other ten units, and I must stop playing, for absolutely without attention, even unconscious attention, nothing can be done.

This very frequent and well−known phenomenon, shows us, first of all, the unconscious activities in their agreement with the conscious, inasmuch as we behave in the same way when both are interrupted by the demand of another thing on our attention. If a row suddenly breaks out before my window I will interrupt an unconscious drumming with the fingers as well as a conscious reading, so that it would be impossible to draw any conclusion concerning the nature of these activities from the mere interruption or the manner of that interruption. This similarity is an additional ground for the fact that what is done unconsciously may be very complex. No absolute boundary may be drawn, and hence we can derive no proof of the incorrectness of an assertion from the performance itself, i. e., from _*what_ has been done unconsciously. Only human nature, its habits, idiosyncrasies, and its contemporary environment can give us any norm.

Section 49. (d) Subjective Conditions.

We have already seen that our ideation has the self for center and point of reference. And we shall later see that the kind of thinking which exclusively relates all events to itself, or the closest relations of the self, is, according to Erdmann, the essence of stupidity. There is, however, a series of intellectual processes in which the thinker pushes his self into the foreground with more or less <p 249> justification, judging everything else

and studying everything else in the light of it, presupposing in others what he finds in himself, and exhibiting a greater interest in himself than may be his proper share. Such ideations are frequently to be found in high−minded natures. I know a genial high−school teacher, the first in his profession, who is so deeply absorbed in his thinking, that he never carries money, watch, or keys because he forgets and loses them. When in the examination of some critical case he needs a coin he turns to his auditors with the question: ``Perhaps one of you gentlemen may _*by some chance_ have a quarter with you?" He judges from his habit of not carrying money with him, that to carry it is to be presupposed as a ``perhaps," and the appearance of a quarter in this crowded auditorium must be ``by chance."

The same thing is true with some of the most habitual processes of some of the most ordinary people. If a man sees a directory in which his name must be mentioned, he looks it up and studies it. If he sees a group photograph in which he also occurs he looks up his own picture, and when the most miserable cheater who is traveling under a false name picks that out, he will seek it out of his _*own_ relationships, will either alter his real name or slightly vary the maiden name of his mother, or deduce it from his place of birth, or simply make use of his christian name. But he will not be likely to move far from his precious self.

That similar things are true for readers, Goethe told us when he showed us that everything that anybody reads interests him only when he finds himself or his activities therein. So Goethe explains that business men and men of the world apprehend a scientific dissertation better than the really learned, ``who habitually hear no more of it than what they have learned or taught and with which they meet their equals."

It is properly indicated that every language has the largest number of terms for those things which are most important to those who speak it. Thus we are told that the Arabians have as many as 6000 words for camel, 2000 for horse, and 50 for lion. Richness of form and use always belong together, as is shown in the fact that the auxiliaries and those verbs most often used are everywhere the most irregular This fact may be very important in examinations, for definite inferences concerning the nature and affairs of the witness may be drawn from the manner and frequency with which he uses words, and whether he possesses an especially large number of forms in any particular direction. <p 250>

The fact is that we make our conceptions in accordance with the things as _*we_ have seen them, and so completely persuade ourselves of the truth of one definite, partial definition, that sometimes we wonder at a phenomenon without judging that it might have been expected to be otherwise. When I first became a student at Strassbourg, I wondered, subconsciously, when I heard the ragged gamins talk French fluently. I knew, indeed, that it was their mother− tongue, but I was so accustomed to viewing all French as a sign of higher education that this knowledge in the gamins made me marvel. When I was a child I once had to bid my grandfather adieu very early, while he was still in bed. I still recall the vivid astonishment of my perception that grandfather awoke without his habitual spectacles upon his nose. I must have known that spectacles are as superfluous as uncomfortable and dangerous when one is sleeping, and I should not even with most cursory thinking have supposed that he would have worn his spectacles during the night. But as I was accustomed always to see my grandfather with spectacles, when he did not have them I wondered at it.

Such instances are of especial importance when the judge is himself making observations, i. e., examining the premises of the crime, studying corpora delicti, etc., because we often suppose ourselves to see extraordinary and illegal things simply because we have been habituated to seeing things otherwise. We even construct and name according to this habit. Taine narrates the instructive story of a little girl who wore a medal around her throat, of which she was told, ``C'est le bon Dieu." When the child once saw her uncle with a lorgnon around his neck she said, ``C'est le bon Dieu de mon oncle." And since I heard the story, I have repeatedly had the opportunity to think, ``C'est aussi le bon Dieu de cet homme." A single word which indicates how a man denotes a thing defines for us his nature, his character, and his circumstances.

For the same reason that everything interests us more according to the degree it involves us personally, we do not examine facts and completely overlook them though they are later shown to be unshakable, without our

being able to explain their causal nexus. If, however, we know causes and relationships, these facts become portions of our habitual mental equipment. Any practitioner knows how true this is, and how especially visible during the examination of witnesses, who ignore facts which to us seem, in the nature of the case, important and definitive. In such cases we must first of all not assume that these facts have not oc− <p 251> curred because the witness has not explained them or has overlooked them; we must proceed as suggested in order to validate the relevant circumstances by means of the witness−−i. e., we must teach him the conditions and relationships until they become portions of his habitual mental machinery. I do not assert that this is easy−− on the contrary, I say that whoever is able to do this is the most effective of examiners, and shows again that the witness is no more than an instrument which is valueless in the hands of the bounder, but which can accomplish all sorts of things in the hands of the master.

One must beware, however, of too free use of the most comfortable means,−−that of examples. When Newton said, ``In addiscendis scientiis exempla plus prosunt, quam praecepta," he was not addressing criminalists, but he might have been. As might, also, Kant, when he proved that thinking in examples is dangerous because it allows the use of real thinking, for which it is not a substitute, to lapse. That this fact is one reason for the danger of examples is certain, but the chief reason, at least for the lawyer, is the fact that an example requires not equality, but mere similarity. The degree of similarity is not expressed and the auditor has no standard for the degree of similarity in the mind of the speaker. ``Omnis analogia claudicat" is correct, and it may happen that the example might be falsely conceived, that similarity may be mistaken for equality, or at least, that there should be ignorance of the inequality. Examples, therefore, are to be used only in the most extreme cases, and only in such wise, that the nature of the example is made very clearly obvious and its incorrectness warned against.

There are several special conditions, not to be overlooked. One of these is the influence of expectation. Whoever expects anything, sees, hears, and constructs, only in the suspense of this expectation, and neglects all competing events most astoundingly. Whoever keenly expects any person is sensible only of the creaking of the garden door, he is interested in all sounds which resemble it, and which he can immediately distinguish with quite abnormal acuteness; everything else so disappears that even powerful sounds, at any event more powerful than that of the creaking gate, are overlooked. This may afford some explanation for the very different statements we often receive from numerous observers of the same event; each one had expected a different thing, and hence, had perceived and had ignored different things. <p 252>

Again, the opposition of the I and You in the person himself is a noteworthy thing. According to Noel, this is done particularly when one perceives one's own foolish management: ``How could you have behaved so foolishly!" Generalized it might be restated as the fact that people say You to themselves whenever the dual nature of the ego becomes visible, i. e., whenever one no longer entertains a former opinion, or when one is undecided and carries about contradictory intentions, or whenever one wants to compel himself to some achievement. Hence ``How could you have done this?"−−``Should you do this or should you not?"−−``You simply shall tell the truth."−−More na<i:>ve people often report such inner dialogues faithfully and without considering that they give themselves away thereby, inasmuch as the judge learns at least that when this occurred the practical ego was a stranger to the considering ego, through whom the subjective conditions of the circumstances involved may be explained.

What people call excellent characterizes them. Excellences are for each man those qualities from which others get the most advantage. Charity, self−sacrifice, mercy, honesty, integrity, courage, prudence, assiduity, and however else anything that is good and brave may be called, are always of use to the other fellow but barely and only indirectly the possessor of the virtues. Hence we praise the latter and spur others on to identical qualities (to our advantage). This is very barren and prosaic, but true. Naturally, not everybody has advantage in the identical virtues of other people, only in those which are of use to their individual situation−− charity is of no use to the rich, and courage of no use to the protected. Hence, people give themselves away more frequently than they seem to, and even when no revelation of their inner lives can be attained from witnesses and accused, they always express enough to show what they consider to be virtue and what not.

Hartenstein characterizes Hegel as a person who made his opponents out of straw and rags in order to be able to beat them down the more easily. This characterizes not only Hegel but a large group of individuals whose daily life consists of it. Just as there is nowhere any particularly definite boundary between sanity and foolishness, and everything flows into everything else, so it is with men and their testimonies, normal and abnormal. From the sober, clear, and true testimony of the former, to the fanciful and impossible assertions of the latter, there is a straight, slowly rising road on which testimony appears progressively less true, and more impossible. <p 253> No man can say where the quality of foolishness begins−−nervousness, excitement, hysteria, over−strain, illusion, fantasy, and pathoformic lies, are the shadings which may be distinguished, and the quantity of untruth in such testimonies may be demonstrated, from one to one hundred per cent., without needing to skip a single degree. We must not, however, ignore and simply set aside even the testimony of the outlaws and doubtful persons, because also they may contain some truth, and we must pay still more attention to such as contain a larger percentage of truth. But with this regard we have our so−called smart lawyers who are over−strained, and it is they who build the real men of straw which cost us so much effort and labor. The form is indeed correct, but the content is straw, and the figure appears subjectively dangerous only to its creator. And he has created it because he likes to fight but desires also to conquer easily. The desire to construct such figures and to present them to the authorities is widespread and dangerous through our habit of seeking some particular motive, hatred, jealousy, a long−drawn quarrel, revenge, etc. If we do not find it we assume that such a motive is absent and take the accusation, at least for the time, to be true. We must not forget that frequently there can be no other defining motive than the desire to construct a man of straw and to conquer him. If this explanation does not serve we may make use finally of a curious phenomenon, called by Lazarus *heroification,* which repeats itself at various levels of life in rather younger people. If we take this concept in its widest application we will classify under it all forms that contain the almost invincible demand for attention, for talking about oneself, for growing famous, on the part of people who have neither the capacity nor the perseverance to accomplish any extraordinary thing, and who, hence, make use of forbidden and even criminal means to shove their personalities into the foreground and so to attain their end. To this class belong all those half−grown girls who accuse men of seduction and rape. They aim by this means to make themselves interesting. So do the women who announce all kinds of persecutions which make them talked about and condoled with; and the numerous people who want to do something remarkable and commit arson; then again certain political criminals of all times who became ``immortal'' with one single stab, and hence devoted their otherwise worthless lives thereto; and finally, even all those who, when having suffered from some theft, arson, or bodily harm, defined their damage as considerably greater than it actually was, not for the purpose <p 254> of recovering their losses, but for the purpose of being discussed and condoled with.

As a rule it is not difficult to recognize this ``heroification,'' inasmuch as it betrays itself through the lack of other motives, and appears definitely when the intent is examined and exaggerations are discovered which otherwise would not appear.

Topic 5. ASSOCIATION OF IDEAS.

Section 50.

The question of association is essentially significant for lawyers because, in many cases, it is only by use of it that we can discover the conditions of the existence of certain conceptions, by means of which witnesses may be brought to remember and tell the truth, etc., without hypnotizing them, or overtesting the correctness of their statements. We will cursorily make a few general observations only:

Concerning the law of association, very little has been learned since the time of Aristotle. It is determined by:

1. Similarity (the common quality of the symbol).

2. Contrast (because every image involves opposition between its extremes).

3. Co−existence, simultaneity (the being together of outer or inner objects in space).

4. Succession (images call each other out in the same order in which they occur).

Hume recognized only three grounds of association of objects−− similarity, contact in time and space, and causality. Theo. Lipps recognizes as the really different grounds of association only similarity and simultaneity (the simultaneity of their presence in the mind, especially).

If, however, simultaneity is to be taken in this sense it may be considered the sole ground of association, for if the images are not simultaneous there can be no question of association. Simultaneity in the mind is only the second process, for images are simultaneous in the mind only because they have occurred simultaneously, existed in the same space, were similar, etc. M<u:>nsterberg,[1] who dealt with the matter and got important results, points out that all so−called inner associations, like similarity, contrast, etc., may be reduced to external association, and all the external associations, even that of <p 255> temporal sequence, may be reduced to co−existence, and all co− existence−associations are psychophysically intelligible. Further: ``The fundamental error of all association processes leading to incorrect connection of ideas, must be contained in their incompleteness. One idea was associated with another, the latter with a third, and then we connect the first with the third . . . a thing we should not have done, since the first, while it co−existed with the second, was also connected with many others."

[1] H. M<u:>nsterberg: Beitrage I−IV. Freiburg 1882−1892.

But even this account does not account for certain difficulties, because some associations are simply set aside, although they should have occurred. Man is inclined, according to Stricker, to inhibit associations which are not implied in his ``funded" complexes.

If we find direct contradiction with regard to associations, the way out is not easy. We have then, first, to consider how, by comparatively remote indirection, to introduce those conditions into the ``funded" complex, which will give rise to the association. But such a consideration is often a big problem in pedagogy, and we are rarely in the position of teaching the witness.

There is still the additional difficulty that we frequently do not know the circumstance with the help of which the witness has made his association. Thomas Hobbes tells the story of an association which involved a leap from the British Civil War to the value of a denarius under the Emperor Tiberius. The process was as follows: King Charles I was given up by the Scotch for $200,000, Christ was sold for 80 denarii, what then was a denarius worth? In order to pursue the thread of such an association, one needs, anyway, only a definite quantity of historical knowledge, but this quantity must be possessed. But such knowledge is a knowledge of universal things that anybody may have, while the personal relations and purely subjective experiences which are at the command of an individual are quite unknown to any other person, and it is often exceedingly difficult to discover them.[1] The case is simplest when one tries to aid the memory of a witness in order to make him place single dates, e. g., when the attempt is made to determine some time and the witness is reminded of certain events that occurred during the time in question in order to assist him in fixing the calendar time. Or again, when the witness is brought to the place of the crime and the individual conditions are associated with the local situation. But when not merely single dates are to <p 256> be associated, when complete events are to be associated, a profound knowledge of the situation must precede, otherwise no association is successful, or merely topsy−turvy results are attained. The difficulties which here ensue depend actually upon the really enormous quantity of knowledge every human being must possess in making use of his senses. Anything that a man has learned at school, in the newspapers, etc., we know approximately, but we have no knowledge of what a man has thought out for himself and what he has felt in his localized conditions, e. g., his home, his town, his travels, his relations and their experiences, etc.−−However important this may be, we have no means of getting hold of it.

[1] A. Mayer and J. Orth: Zur qualitativen Untersuchung der Assoziation. Ztschrft. f. Psychol. u. Physiol. der Sinnesorgane, XXVI, 1, 1901.

Those associations which have physical expression are of importance only in particular cases. For example, the feeling of ants all over the body when you think that you have been near an ant− hill, or the feeling of physical pain on hearing the description of wounds. It is exceedingly funny to see how, during the lectures of dermatologists, the whole audience scratches that part of the body which is troubling the patient who is being described.

Such associations may be legally valuable in so far as the accused who plead innocence make unconscious movements which imply the denied wounds. In any event, it is necessary to be cautious because frequently the merely accurate description of a wound may bring about the same effect in nervous persons as the sight of that wound. If, however, the wound is not described and even its place not mentioned, and only the general harm is spoken of, then if the accused reaches for that part of his body in which the wound of his victim is located, you have a clew, and your attention should be directed upon it. Such an index is worth no more, but even as a clew it has some value.

All in all, we may say that the legally significant direction of association falls in the same class with ``getting an idea." We need association for the purpose of constructing an image and an explanation of the event in question; something must ``occur to us." We must ``get an idea," if we are to know how something happened. We need association, moreover, in order to discover that something has occurred to the witness.

``Getting an idea" or ``occurrence" is essentially one and the same in all its forms. We have only to study its several manifestations:

1. ``Constructive occurrence," by means of which the correct thing may possibly be discovered in the way of combining, inferring, <p 257> comparing and testing. Here the association must be intentional and such ideas must be brought to a fixed image, which may be in such wise associated with them as to make a result possible. Suppose, e. g., that the case is one of arson, and the criminal is unknown. Then we will require the plaintiff to make local, temporal, identifying, and contrasting associations with the idea of all and each of his enemies, or of discharged servants, beggars, etc. In this wise we can attain to other ideas, which may help us to approach some definite theory.

2. ``Spontaneous occurrence" in which a thought appears with apparent suddenness for no particular reason. As a matter of fact, such suddenness is always caused by some conscious, and in most cases, some unconscious association, the thread of which can not be later sought out and exhibited because of its being subconscious, or of its being overleaped so quickly and readily that it can not be traced. Very often some particular sense−perception exercises an influence which unites simultaneous ideas, now here again united. Suppose once during some extraordinary sound, e. g., the ringing of a bell, which I do not often hear, I had seen somebody. Now when I hear that bell ringing I will think of the person without perhaps knowing the definite association−−i. e., the connection of the man with the tone of the bell occurs unconsciously. This may go still further. That man, when I first saw him, might have worn, perhaps, a red necktie, let us say poppy−red−−it may now happen that every time I hear that bell−note I think of a field of poppy−flowers. Now who can pursue this road of association?

3. ``Accluding occurrence," in which, in the process of the longest possible calm retention of an idea, another appears of itself and associates with the first. E. g., I meet a man who greets me although I do not recognize him. I may perhaps know who he is, but I do not spontaneously think of it and can not get at his identity constructively, because of lack of material. I therefore expect something from this ``accluding occurrence" and with my eyes shut I try as long as possible to keep in mind the idea of this man. Suddenly, I see him before me with serious face and folded hands, on his right a similar individual and a similar one on his left, above them a high window with a curtain−−the man was a juryman who sat opposite me. But the memory is

not exhausted with this. I aim to banish his image as seated and keep him again before my eyes. I see an apparent gate beyond him with shelves behind; it is the image of a shop−keeper in a small town who is standing before <p 258> the door of his shop. I hold this image straining before my eyes−− suddenly a wagon appears with just that kind of trapping which I have only once seen to deck the equipage of a land−owner. I know well who this is, what the little town near his estate is called, and now I suddenly know that the man whose name I want to remember is the merchant X of Y who once was a juryman in my court. This means of the longest possible retention of an idea, I have made frequent use of with the more intelligent witnesses (it rarely succeeds with women because they are restless), and all in all, with surprising effects.

4. ``Retrospective occurrence," which consists of the development of associations backward. E. g.−−do what I will, I can not remember the name of a certain man, but I know that he has a title to nobility, which is identical with the name of a small town in Obertfalz. Finally, the name of the town Hirschau occurs to me, and now I easily associate backwards, ``Schaller von Hirschau." It is, of course, natural that words should unroll themselves forwards with habitual ease, but backwards only when we think of the word we are trying to remember, as written, and then associate the whole as a MS. image. This is unhappily difficult to use in helping another.

Topic 6. RECOLLECTION AND MEMORY.

Section 51.

In direct connection with the association of ideas is our recollection and memory, which are only next to perception in legal importance in the knowledge of the witness. Whether the witness _*wants_ to tell the truth is, of course, a question which depends upon other matters; but whether he _*can_ tell the truth depends upon perception and memory. Now the latter is a highly complicated and variously organized function which is difficult to understand, even in the daily life, and much more so when everything depends upon whether the witness has noticed anything, how, how long, what part of the impression has sunk more deeply into his mind, and in what direction his defects of memory are to be sought. It would be inexcusable in the lawyer not to think about this and to make equivalent use of all the phenomena that are presented to him. To overlook the rich literature and enormous work that has been devoted to this subject is to raise involuntarily the question, for whom was it all done? Nobody needs a thorough−going knowledge of the essence of memory more than the lawyer. <p 259>

I advise every criminalist to study the literature of memory and recommend the works of M<u:>nsterberg, Ribot, Ebbinghaus, Cattell, Kr<a:>pelin, Lasson, Nicolai Lange, Arreat, Richet, Forel, Galton, Biervliet, Paneth, Fauth, Sander, Koch, Lehmann, F<e'>r<e'>, Jodl,[1] etc.

[1] H. M<u:>nsterberg: Beitr<a:>ge II, IV. H. Ebbinghaus: <U:>ber das Ged<a:>chtnis. Leipzig 1885. J. M. Cattell: Mind, Vols. 11−15. (Articles.) J. Bourdon: Influence de l'Age sur la Memoire Imm<e'>diate. Revue Philosophlque, Vol. 35. Kr<a:>pelin: <U:>ber Erinnerungst<a:>usehungen. Archiv. f. Psychiatrie, XVII, 3. Lasson: Das Ged<a:>chtnis. Berlin 1894, Diehl Zum Studium der Merkf<a:>higkeit. Beitr. z. Psyehol. d. Aussage, II. 1903.

Section 52. (a) The Essence of Memory.

Our ignorance concerning memory is as great as its universal importance, and as our indebtedness to it for what we are and possess. At best we have, when explaining it, to make use of images.

Plato accounts for memory in the ``Theaetetus" by the image of the seal ring which impresses wax; the character and duration of the impression depends upon the size, purity, and hardness of the wax. Fichte says, ``The spirit does not conserve its products,−− the single ideas, volitions, and feelings are conserved by the mind and constitute the ground of its inexhaustibly retentive memory. . . . The possibility of recalling what

has once been independently done, this remains in the spirit." James Sully compares the receptivity of memory with the infusion of dampness into an old MS. Draper also brings a physical example: If you put a flat object upon the surface of a cold, smooth metal and then breathe on the metal and, after the moisture has disappeared, remove the object, you may recall its image months after, whenever you breathe on the place in question. Another has called memory the safe of the mind. It is the opinion of E. Hering[2] that what we once were conscious of and are conscious of again, does not endure as image but as echo such as may be heard in a tuning fork when it is properly struck. Reid asserts that memory does not have present ideas, but past things for its object, Natorp explains recollection as an identification of the unidentical, of not−now with now. According to Herbart and his school,[3] memory consists in the possibility of recognizing the molecular arrangements which had been left by past impressions in the gan− <p 260> glion cells, and in reading them in identical fashion. According to Wundt and his pupils, the problem is one of the disposition of the central organs. And it is the opinion of James Mill that the content of recollection is not only the idea of the remembered object, but also the idea that the object had been experienced before. Both ideas together constitute the whole of that state of mind which we denote as memory. Spinoza[1b] deals freely with memory, and asserts that mankind does not control it inasmuch as all thoughts, ideas, resolutions of spirits, are bare results of memories, so that human freedom is excluded. Uphues[2b] distinguishes between memory and the conception which is presupposed in the recognition of an object different from that conception. This is the theory developed by Aristotle.

[2] E. Hering: <U:>ber das Ged<a:>chtnis, etc. Vienna 1876.

[3] Cf. V. Hensen: <U:>ber das Ged<a:>chtnis, etc. Kiel 1877.

[1b] Ethics. Bk. III, Prop. II, Scholium.

[2b] G K. Uphues: <U:>ber die Erinnerung. Leipzig 1889.

According to Berkeley and Hume recognition is not directed upon a different object, nor does it presuppose one; the activity of recognition consists either in the exhibition or the creation of the object. Recognition lends the idea an independence which does not belong to it and in that way turns it into a thing, objectifies it, and posits it as substantial. Maudsley makes use of the notion that it is possible to represent any former content of consciousness as attended to so that it may again come into the center of the field of consciousness. Dorner[3] explains recognition as follows: ``The possible is not only the merely possible in opposition to the actual; it is much more proper to conceive being as possible, i. e., as amenable to logical thinking; without this there could be no recognition." K<u:>lpe[4] concerns himself with the problem of the difference between perceptive images and memory images and whether the latter are only weaker than the former as English philosophers and psychologists assert. He concludes that they are not so.

[3] H Dorner: Das menschliche Erkennen. Berlin 1877.

[4] O. K<u:>lpe: Grundriss der Psychologie. Leipzig 1893.

When we take all these opinions concerning memory together we conclude that neither any unity nor any clear description of the matter has been attained. Ebbinghaus's sober statement may certainly be correct: ``Our knowledge of memory rises almost exclusively from the observation of extreme, especially striking cases. Whenever we ask about more special solutions concerning the detail of what has been counted up, and their other relations of dependence, their structure, etc., there are no answers." <p 261>

Nobody has as yet paid attention to the simple daily events which constitute the routine of the criminalists. We find little instruction concerning them, and our difficulties as well as our mistakes are thereby increased. Even the modern repeatedly cited experimental investigations have no direct bearing upon our work.

We will content ourselves with viewing the individual conceptions of memory and recollection as occurring in particular cases and with considering them, now one, now the other, according to the requirements of the case. We shall consider the general relation of ``reproduction" to memory. ``Reproduction" we shall consider in a general sense and shall subsume under it also the so−called involuntary reproductions which rise in the forms and qualities of past events without being evoked, i. e., which rise with the help of unconscious activity through the more or less independent association of ideas. Exactly this unconscious reproduction, this apparently involuntary activity, is perhaps the most fruitful, and we therefore unjustly meet with unexceptionable distrust the later sudden ``occurrence," especially when these occurrences happen to defendant and his witnesses. It is true that they frequently deceive us because behind the sudden occurrence there often may be nothing more than a better training and instruction from experienced cell−mates; though very often the circumstances are such that the suspect has succeeded through some released prisoner, or by a blackened letter, in sending a message from his prison, by means of which false witnesses of alibi, etc., are provided. Distrust is in any event justified, when his most important witnesses suddenly ``occur" to the accused. But this does not always happen, and we find in our own experience evidence of the fact that memory and the capacity to recall something often depend upon health, feeling, location, and chance associations which can not be commanded, and happen as accidentally as anything in life can. That we should remember anything at all depends upon the point of time. Everybody knows how important twilight may be for memory. Indeed, twilight has been called the visiting−hour of recollection, and it is always worth while to observe the situation when anybody asserts that some matter of importance occurred to him in the twilight. Such an assertion merits, at least, further examination. Now, if we only know how these occurrences constitute themselves, it would not be difficult to study them out and to estimate their probability. But we do not know, and we have to depend, primarily, on observation <p 262> and test. Not one of the theories applied is supported by experience altogether.

They may be divided into three essential groups.

1. What is received, fades away, becomes a ``trace," and is more or less overlaid by new perceptions. When these latter are ever set aside, the old trace comes into the foreground.

2. The ideas sink, darken, and disintegrate. If they receive support and intensification they regain complete clearness.

3. The ideas crumble up, lose their parts. When anything occurs that reunites them and restores what is lost, they become whole again.

Ebbinghaus maintains, correctly enough, that not one of these explanations is universally satisfactory, but it must be granted that now one, now another is useful in controlling this or that particular case. The processes of the destruction of an idea, may be as various as those of the destruction and restoration of a building. If a building is destroyed by fire, I certainly can not explain the image given by merely assuming that it was the victim of the hunger of time. A building which has suffered because of the sinking of the earth I shall have to image by quite other means than those I would use if it had been destroyed by water.

For the same reason when, in court, somebody asserts a sudden ``occurrence," or when we want to help him and something occurs to him, we shall have to proceed in different fashion and determine our action empirically by the conditions of the moment. We shall have to go back, with the help of the witness, to the beginning of the appearance of the idea in question and study its development as far as the material permits us. In a similar manner we must make use of every possibility of explanation when we are studying the disappearance of ideas. At one point or another we shall find certain connections. One chief mistake in such reconstructive work lies in overlooking the fact that no individual is merely passive when he receives sensations; he is bound to make use of a certain degree of activity. Locke and Bonnet have already mentioned this fact, and anybody may verify it by comparing his experiments of trying to avoid seeing or hearing, and trying actively to see or to hear. For this reason it is foolish to ask anybody how it happened that he perceived

less than another, because both have equally good senses and were able to perceive as much. On the other hand, the grade of activity each has made use of in perception is rarely inquired into, and this is the more unfortunate because memory is often propor− <p 263> tionate to activity. If, then, we are to explain how various statements concerning contemporaneous matters, observed a long time ago, are to be combined, it will not be enough to compare the memory, sensory acuteness, and intelligence of the witnesses. The chief point of attention should be the activity which has been put in motion during the sense−perception in question.

Section 53. (b) The Forms of Reproduction.

Kant analyzes memory:

1. As apprehending something in memory.

2. As retaining it for a long time.

3. As immediately recalling it.

One might, perhaps add, as 4: that the memory−image is most conformable to the actual one. This is not identical with the fact that we recollect at all. It is to be assumed that the forms of memory− images vary very much with different persons, because each individual verifies his images of various objects variously. I know two men equally well for an equal time, and yet have two memory− images of them. When I recall one, a life−sized, moving, and moved figure appears before me, even the very man himself; when I think of the other, I see only a small, bare silhouette, foggy and colorless, and the difference does not require that the first shall be an interesting and the second a boresome individual. This is still clearer in memory of travels. One city appears in recollection with size, color and movement, real; the other, in which I sojourned for the same length of time and only a few days later, under similar conditions of weather, etc., appears like a small, flat photograph. Inquiry reveals that this is as true of other people as of me, and that the problem of memory is much differentiated by the method of recollection. In fact, this is so little in doubt that at some periods of time there are more images of one sort than of another and what is a rule for one kind of individual is an exception for another.

Now there is a series of phenomena for which we possess particular types of images which often have little to do with the things themselves. So Exner says: ``We might know the physiognomy of an individual very accurately, be able to pick him out among a thousand, without being clear about the differences between him and another; indeed, we often do not know the color of his eyes and hair, yet marvel when it suddenly becomes different."

Kries[1] calls attention to another fact: ``When we try to mark in <p 264> memory the contour of a very well−known coin, we deceive ourselves, unbelievably−−when we see the coin the size we imagine it to be, we wonder still more."

[1] v. Kries: Beitr<a:>ge zur Lehre vom Augenmass. Hamburg 1892.

Lotze shows correctly that memory never brings back a blinding flash of light, or the over−powering blow of an explosion with the intensity of the image in proper relation to the impression. I believe that it is not necessary to go so far, for example, and hold that not even the sparkling of a star, the crack of a pistol, etc., are kept in memory with more than partial implication of the event. Maudsley points out correctly that we can have no memory of pain−−``because the disturbance of nervous elements disappears just as soon as their integrity is again established." Perhaps, also, because when the pain has disappeared, the tertium comparationis is lacking. But one need not limit oneself to pain, but may assert that we lack memory of all unpleasant sensations. The first time one jumps into the water from a very high spring−board, the first time one's horse rises over a hurdle, or the first time the bullets whistle past one's ear in battle, are all most

unpleasant experiences, and whoever denies it is deceiving himself or his friends. But when we think of them we feel that they were not so bad, that one merely was very much afraid, etc. But this is not the case; there is simply no memory for these sensations.

This fact is of immense importance in examination and I believe that no witness has been able effectively to describe the pain caused by a body wound, the fear roused by arson, the fright at a threat, not, indeed, because he lacked the words to do so, but because he had not sufficient memory for these impressions, and because he has nothing to−day with which to compare them. Time, naturally, in such cases makes a great difference, and if a man were to describe his experiences shortly after their uncomfortable occurrence he would possibly remember them better than he would later on. Here, if the examiner has experienced something similar, years ago, he is likely to accuse the witness of exaggeration under the belief that his own experience has shown the thing to be not so bad. Such an accusation will be unjust in most instances. The differences in conception depend to a large degree on differences in time, and consequent fading in memory. Several other particular conditions may be added.

Kant, e. g., calls attention to the power we have over our fancy: ``In memory, our will must control our imagination and our imagina− <p 265> tion must be able to determine voluntarily the reproduction of ideas of past time."

But these ideas may be brought up not only voluntarily; we have also a certain degree of power in making these images clearer and more accurate. It is rather foolish to have the examiner invite the witness to ``exert his memory, to give himself the trouble, etc." This effects nothing, or something wrong. But if the examiner is willing to take the trouble, he may excite the imagination of the witness and give him the opportunity to exercise his power over the imagination. How this is done depends naturally upon the nature and education of the witness, but the judge may aid him just as the skilful teacher may aid the puzzled pupil to remember. When the pianist has completely forgotten a piece of music that he knew very well, two or three chords may lead him to explicate these chords forward or backward, and then−−one step after another−−he reproduces the whole piece. Of course the chords which are brought to the mind of the player must be properly chosen or the procedure is useless.

There are rules for the selection of these clews. According to Ebbinghaus: ``The difference in the content of the recollected is due to discoverable causes. Melodies may become painful because of their undesirable obstinacy in return. Forms and colors do not usually recur, and if they do, they do so with noticeable claims on distinctness and certainty. Past emotional conditions are reproduced only with effort, in comparatively pallid schemes, and often only by means of the accompanying movements." We may follow these clews, in some directions at least, to our advantage. Of course, nobody will say that one should play tunes to witnesses in order to make them remember, because the tunes have sunk into the memory with such undesirable obstinacy as to be spurs to recollection. It is just as futile to operate with forms and colors, or to excite emotional conditions. But what has been said leads us back to the ancient rule of working so far as is possible with the constantly well−developed sense of location. Cicero already was aware of this

``Tanta vis admonitionis inest in locis, id quidem infinitum in hac urbe, quocumque enim ingredimur, in aliquam historiam vestigium possumus." Indeed he deduces his whole doctrine of memory from the sense of location, or he at least justifies those who do so.

If, then, we bring a witness, who in our court house recollects nothing, in locum rei sitae, all the mentioned conditions act favor− <p 266> ably.[1] The most influential is the sense of location itself, inasmuch as every point at which something significant occurred not only is the content of an association, but is also the occasion of one. It is, moreover, to be remembered that reproduction is a difficult task, and that all unnecessary additional difficulties which are permitted to accrue, definitely hinder it. Here, too, there is only a definite number of units of psychical energy for use, and the number which must be used for other matters is lost to the principal task. If, e. g., I recall an event which had occurred near the window of a definite house, I should

have considerable difficulty to recall the form of the house, the location of the window, its appearance, etc., and by the time this attempt has barely begun to succeed, I have made so much effort that there is not sufficient power left for the recollection of the event we are really concerned with. Moreover, a mistake in the recollection of extraneous objects and the false associations thereby caused, may be very disturbing to the correctness of the memory of the chief thing. If, however, I am on the spot, if I can see everything that I had seen at the time in question, all these difficulties are disposed of.

[1] Cf. Schneikert in H. Gross's Archiv, XIII, 193.

We have still to count in the other conditions mentioned above. If acoustic effects can appear anywhere, they can appear in the locality where they first occurred. The same bell ringing, or a similar noise, may occur accidentally, the murmur of the brook is the same, the rustle of the wind, determined by local topography, vegetation, especially by trees, again by buildings, varies with the place. And even if only a fine ear can indicate what the difference consists of, every normal individual senses that difference unconsciously. Even the ``universal noise," which is to be found everywhere, will be differentiated and characteristic according to locality, and that, together with all these other things, is extraordinarily favorable to the association of ideas and the reproduction of the past. Colors and forms are the same, similar orders may occur, and possibly the same attitudes are awakened, since these depend in so great degree upon external conditions. Now, once these with their retrospective tendencies are given, the recollection of any contemporary event increases, as one might say, spontaneously. Whatever may especially occur to aid the memory of an event, occurs best at the place where the event itself happened, and hence, one can not too insistently advise the examination of witnesses, in important cases, only in loco rei sitae. Incidentally, the judge himself learns the real <p 267> situation and saves himself, thereby, much time and effort, for he is enabled in a few words to render the circumstantial descriptions which have to be composed with so much difficulty when the things are not seen and must be derived from the testimonies of the witnesses themselves.

Whoever does not believe in the importance of conducting the examination at the place of an event, needs only to repeat his examination twice, once at the court, and again at the place−−then he certainly will doubt no more. Of course the thing should not be so done that the event should be discussed with the witness at the place of its occurrence and then the protocol written in the house of the mayor, or in an inn half an hour away−−the protocol must to the very last stroke of the pen be written then and there, in order that every impression may be renewed and every smallest doubt studied and corrected. Then the differences between what has passed, what has been later added, and what is found to−day can be easily determined by sticking to the rule of Uphues, that the recognition of the present as present is always necessary for the eventual recognition of the past. Kant has already suggested what surprising results such an examination will give: ``There are many ideas which we shall never again in our lives be conscious of, unless some occasion cause them to spring up in the memory." But such a particularly powerful occasion is locality, inasmuch as it brings into play all the influences which our senses are capable of responding to.[1]

[1] Jost: <U:>ber Ged<a:>chtnisbildung.

Of course the possibility of artificially−stimulated memory disappears like all memory, with the lapse of time. As a matter of fact, we know that those of our experiences which concern particular persons and things, and which are recalled at the sight of those persons and things, become, later on, when the connections of images have been broken, capable only of awakening general notions, even though the persons or things are as absolutely present as before. But very unfavorable circumstances must have been at work before such a situation can develop.

It is characteristic, as is popularly known, that memory can be intensified by means of special occasions. It is H<o:>fler's opinion that the Spartan boys were whipped at the boundary stones of their country in order that they might recall their position, and even now−a−days our peasants have the custom, when setting up new boundary stones, of grasping small boys by the ears and hair in <p 268> order that they shall the better

remember the position of the new boundary mark when, as grown men, they will be questioned about it. This being the case, it is safer to believe a witness when he can demonstrate some intensely influential event which was contemporaneous with the situation under discussion, and which reminds him of that situation.

Section 54. (c) The Peculiarities of Reproduction.

The differences in memory which men exhibit are not, among their other human qualities, the least. As is well known, this difference is expressed not only in the vigor, reliability, and promptness of their memory, but also in the field of memory, in the accompaniment of rapid prehensivity by rapid forgetfulness, or slow prehensivity and slow forgetfulness, or in the contrast between narrow, but intense memory, and broad but approximate memory.

Certain special considerations arise with regard to the field of greatest memory. As a rule, it may be presupposed that a memory which has developed with especial vigor in one direction has generally done this at the cost of memory in another direction. Thus, as a rule, memory for numbers and memory for names exclude each other. My father had so bad a memory for names that very frequently he could not quickly recall my Christian name, and I was his own son. Frequently he had to repeat the names of his four brothers until he hit upon mine, and that was not always a successful way.[1] When he undertook an introduction it was always: ``My honored m−−m−−m,"−−``The dear friend of my youth m−−m−−m." On the other hand, his memory for figures was astounding. He noted and remembered not only figures that interested him for one reason or another, but also those that had not the slightest connection with him, and that he had read merely by accident. He could recall instantaneously the population of countries and cities, and I remember that once, in the course of an accidental conversation, he mentioned the production of beetroot in a certain country for the last ten years, or the factory number of my watch that he had given me fifteen years before and had never since held in his hand. He often said that the figures he carried in his head troubled him. In this regard the symptom may be mentioned that he was not a good mathematician, but so exceptional a card player that nobody wanted to play with him. He noticed <p 269> every single card dealt and could immediately calculate what cards each player had, and was able to say at the beginning of the game how many points each must have.

[1] Cf. S. Freud Psychopathologie des Alltagsleben.

Such various developments are numerous and of importance for us because we frequently are unwilling to believe the witness testifying in a certain field for the reason that his memory in another field had shown itself to be unreliable. Schubert and Drobisch cite examples of this sort of thing, but the observations of moderns, like Charcot and Binet, concerning certain lightning calculators (Inaudi, Diamandi, etc.), confirm the fact that the memory for figures is developed at the expense of other matters. Linn<e'> tells that Lapps, who otherwise note nothing whatever, are able to recognize individually each one of their numberless reindeer. Again, the Dutch friend of flowers, Voorhelm, had a memory only for tulips, but this was so great that he could recognize twelve hundred species of tulips merely from the dry bulbs.

These fields seem to be of a remarkably narrow extent. Besides specialists (numismatists, zoologists, botanists, heralds, etc.) who, apart from their stupendous memory for their particular matters, appear to have no memory for other things, there are people who can remember only rhymes, melodies, shapes, forms, titles, modes, service, relationships, etc. V. Volkmar has devoted some space to showing this. He has also called attention to the fact that the semi−idiotic have an astounding memory for certain things. This has been confirmed by other students. One of them, Du Potet,[1] who is perhaps the expert in the popular mind of the Austrian Alps, has made it especially clear. As in all mountainous regions there are a great number of those unfortunate idiots who, when fully developed, are called cretins, and in their milder form are semi−human, but do not possess intelligence enough to earn their own living. Nevertheless, many of them possess astounding memories for certain things. One of them is thoroughly conversant with the weather prophecy in the calendar for the past and the present year, and can cite it for each day. Another knows the day and the

history of every saint of the Catholic church. Another knows the boundaries of every estate, and the name, etc., of its owner. Another knows each particular animal in a collective herd of cattle, knows to whom it belongs, etc. Of course not one of these unfortunates can read. Drobisch mentions an idiotic boy, not altogether able to speak, who, through the untiring efforts of a lady, succeeded finally in <p 270> learning to read. Then after hasty reading of any piece of printed matter, he could reproduce what he had read word for word, even when the book had been one in a foreign and unknown tongue. Another author mentions a cretin who could tell exactly the birthdays and death−days of the inhabitants of his town for a decade.

[1] Du Potet: Journal du Magnetisme, V. 245.

It is a matter of experience that the semi−idiotic have an excellent memory and can accurately reproduce events which are really impressive or alarming, and which have left effects upon them. Many a thing which normal people have barely noticed, or which they have set aside in their memory and have forgotten, is remembered by the semi−idiotic and reproduced. On the contrary, the latter do not remember things which normal people do, and which in the latter frequently have a disturbing influence on the important point they may be considering. Thus the semi−idiotic may be able to describe important things better than normal people. As a rule, however, they disintegrate what is to be remembered too much, and offer too little to make any effective interpretation possible. If such a person, e. g., is witness of a shooting, he notices the shot only, and gives very brief attention to what precedes, what follows, or what is otherwise contemporary. Until his examination he not only knows nothing about it, but even doubts its occurrence. This is the dangerous element in his testimony. Generally it is right to believe his kind willingly. ``Children and fools tell the truth," what they say bears the test, and so when they deny an event there is a tendency to overlook the fact that they have forgotten a great deal and hence to believe that the event had really not occurred.

Similar experiences are yielded in the case of the memory of children. Children and animals live only in the present, because they have no historically organic ideas in mind. They react directly upon stimuli, without any disturbance of their idea of the past. This is valid, however, only for very small children. At a later age children make good witnesses, and a well−brought−up boy is the best witness in the world. We have only to keep in mind that later events tend in the child's mind to wipe out earlier ones of the same kind.[1] It used to be said that children and nations think only of the latest events. And that is universally true. Just as children abandon even their most precious toys for the sake of a new one, so they tell only the latest events in their experience. And this is especially the case when there are a great many facts−− <p 271> e. g., repeated mal−treatment or thefts, etc. Children will tell only of the very last, the earlier one may absolutely have disappeared from the memory.

[1] F. Kemsies Ged<a:>chtnis Untersuchungen an Scht<u:>ern. Ztsch. f. p<a:>dago. Psych. III, 171 (1901).

Bolton,[1] who has made a systematic study of the memory of children, comes to the familiar conclusion that the scope of memory is measured by the child's capacity of concentrating its attention. Memory and acute intelligence are not always cognate (the latter proposition, true not for children alone, was known to Aristotle). As a rule girls have better memory than boys (it might also be said that their intelligence is generally greater, so long as no continuous intellectual work, and especially the creation of one's own ideas, is required). Of figures read only once, children will retain a maximum of six. (Adults, as a rule, also retain no more.) The time of forgetting in general has been excellently schematized by Ebbinghaus. He studied the forgetting of a series of thirteen nonsense syllables, previously learned, in such a way as to be able to measure the time necessary to re−learn what was forgotten. At the end of an hour he needed half the original time, at the end of eight hours two−thirds of that time. Then the process of loss became slower. At the end of twenty−four hours he required a third, at the end of six days a fourth, at the end of a month a clear fifth, of the time required at first.

[1] T E. Bolton: The Growth of Memory in School Children. Am. Jour. Psych. IV.

I have tested this in a rough way on various and numerous persons, and invariably found the results to tally. Of course, the measure of time alters with the memory in question, but the relations remain identical, so that one may say approximately how much may be known of any subject at the end of a fixed time, if only one ratio is tested. To criminalists this investigation of Ebbinghaus' is especially recommended.

The conditions of prehensivity of particular instances are too uncertain and individual to permit any general identifications or differentiations. There are certain approximating propositions−− e. g., that it is easier to keep in mind rhymed verse than prose, and definite rows and forms than block masses. But, on the one hand, what is here involved is only the ease of memory, not the content of memory, and on the other hand there are too many exceptions −−e. g., there are many people who retain prose better than verse. Hence, it is not worth while to go further in the creation of such rules. Forty or fifty years ago, investigations looking toward them <p 272> had been pursued with pleasure, and they are recorded in the journals of the time.

That aged persons have, as is well known, a good memory for what is long past, and a poor one for recent occurrences is not remarkable. It is to be explained by the fact that age seems to be accompanied with a decrease of energy in the brain, so that it no longer assimilates influences, and the imagination becomes dark and the judgment of facts incorrect. Hence, the mistakes are those of apperception of new things,−−what has already been perceived is not influenced by this loss of energy.

Again, it should not rouse astonishment that so remarkable and delicately organized a function as memory should be subject to anomalies and abnormalities of all kinds. We must take it as a rule not to assume the impossibility of the extraordinary phenomena that appear and to consult the expert about them.[1] The physician will explain the pathological and pathoformic, but there is a series of memory−forms which do not appear to be diseased, yet which are significantly rare and hence appear improbable. Such forms will require the examination of an experienced expert psychologist who, even when unable to explain the particular case, will still be able to throw some light on it from the literature of the subject. This literature is rich in examples of the same thing; they have been eagerly collected and scientifically studied in the earlier psychological investigations. Modern psychology, unfortunately, does not study these problems, and in any event, its task is so enormous that the practical problems of memory in the daily life must be set aside for a later time. We have to cite only a few cases handled in literature.

[1] L. Bazerque: Essai de Psychopathologie sur l'Amuesie Hyst<e'>rique et Epil<e'>ptique. Toulouse 1901.

The best known is the story of an Irish servant girl, who, during fever, recited Hebrew sentences which she had heard from a preacher when a child. Another case tells of a very great fool who, during fever, repeated prolonged conversations with his master, so that the latter decided to make him his secretary. But when the servant got well he became as foolish as ever. The criminalist who has the opportunity of examining deeply wounded, feverish persons, makes similar, though not such remarkable observations. These people give him the impression of being quite intelligent persons who tell their stories accurately and correctly. Later on, after they are cured, one gets a different opinion of their intelligence. Still more frequently one observes that these feverish, wounded victims know <p 273> more, and know more correctly about the crime than they are able to tell after they have recovered. What they tell, moreover, is quite reliable, provided, of course, they are not delirious or crazy.

The cases are innumerable in which people have lost their memory for a short time, or for ever. I have already elsewhere mentioned an event which happened to a friend of mine who received a sudden blow on the head while in the mountains and completely lost all memory of what had occurred a few minutes before the blow. After this citation I got a number of letters from my colleagues who had dealt with similar cases. I infer, therefore, that the instances in which people lose their memory of what has occurred before the event by way of a blow on the head, are numerous.[1]

[1] Cf. H. Gross's Archiv. I, 337.

Legally such cases are important because we would not believe statements in that regard made by accused, inasmuch as there seems to be no reason why the events _*before_ the wound should disappear, just as if each impression needed a fixative, like a charcoal drawing. But as this phenomenon is described by the most reliable persons, who have no axe to grind in the matter, we must believe it, other things being equal, even when the defendant asserts it. That such cases are not isolated is shown in the fact that people who have been stunned by lightning have later forgotten everything that occurred shortly before the flash. The case is similar in poisoning with carbonic−acid gas, with mushrooms, and in strangulation. The latter cases are especially important, inasmuch as the wounded person, frequently the only witness, has nothing to say about the event.

I cannot omit recalling in this place a case I have already mentioned elsewhere, that of Brunner. In 1893 in the town of Dietkirchen, in Bavaria, the teacher Brunner's two children were murdered, and his wife and servant girl badly wounded. After some time the woman regained consciousness, seemed to know what she was about, but could not tell the investigating justice who had been sent on to take charge of the case, anything whatever concerning the event, the criminal, etc. When he had concluded his negative protocol she signed it, Martha Guttenberger, instead of Martha Brunner. Fortunately the official noted this and wanted to know what relation she had to the name Guttenberger. He was told that a former lover of the servant girl an evil−mouthed fellow, was called by that name. He was traced to Munich and there arrested. He immediately confessed to the crime. And when Mrs. Brunner <p 274> became quite well she recalled accurately that she had definitely recognized Guttenberger as the murderer.[1]

[1] J. Hubert: Das Verhalten des Ged<a:>chtnisses nach Kopfverletzungen. Basel, 1901.

The psychological process was clearly one in which the idea, ``Guttenberger is the criminal,'' had sunk into the secondary sphere of consciousness, the subconsciousness,−−so that it was only clear to the real consciousness that the name Guttenberger had something to do with the crime. The woman in her weakened mental condition thought she had already sufficiently indicated this fact, so that she overlooked the name, and hence wrote it unconsciously. Only when the pressure on her brain was reduced did the idea that Guttenberger was the murderer pass from the subconscious to the conscious. Psychiatrists explain the case as follows:

The thing here involved is retrograde amnesia. It is nowadays believed that this phenomenon in the great majority of cases occurs according to the rule which defines traumatic hysteria, i. e., as ideogen. The ideational complexes in question are forced into the subconsciousness, whence, on occasion, by aid of associative processes, hypnotic concentration, and such other similar elements, they can be raised into consciousness. In this case, the suppressed ideational complex manifested itself in signing the name.

All legal medicine discusses the fact that wounds in the head make people forget single words. Taine, Guerin, Abercrombie, etc., cite many examples, and Winslow tells of a woman who, after considerable bleeding, forgot all her French. The story is also told that Henry Holland had so tired himself that he forgot German. When he grew stronger and recovered he regained all he had forgotten.

Now would we believe a prisoner who told us any one of these things?

The phenomena of memories which occur in dying persons who have long forgotten and never even thought of these memories, are very significant. English psychologists cite the case of Dr. Rush, who had in his Lutheran congregation Germans and Swedes, who prayed in their own language shortly before death, although they had not used it for fifty or sixty years. I can not prevent myself from thinking that many a death−bed confession has something to do with this phenomenon.[2]

[2] Cf. H. Gross's Archiv. XV, 123.

At the boundary between incorrect perception and forgetting are those cases in which, under great excitement, important events <p 275> do not reach consciousness. I believe that the responsibility is here to be borne by

the memory rather than by sense−perception. There seems to be no reason for failing to perceive with the senses under the greatest excitement, but there is some clearness in the notion that great excitement causes what has just been perceived to be almost immediately forgotten. In my ``Manual" I have discussed a series of cases of this sort, and show how the memory might come into play. None of the witnesses, e. g., had seen that Mary Stuart received, when being executed, two blows. In the case of an execution of many years ago, not one of those present could tell me the color of the gloves of the executioner, although everyone had noticed the gloves. In a train wreck, a soldier asserted that he had seen dozens of smashed corpses, although only one person was harmed. A prison warden who was attacked by an escaping murderer, saw in the latter's hand a long knife, which turned out to be a herring. When Carnot was murdered, neither one of the three who were in the carriage with him, nor the two footmen, saw the murderer's knife or the delivery of the blow, etc.

How often may we make mistakes because the witnesses−−in their excitement−−have forgotten the most important things!

Section 55. (d) Illusions of Memory.

Memory illusion, or paramnesia, consists in the illusory opinion of having experienced, seen, or heard something, although there has been no such experience, vision, or sound. It is the more important in criminal law because it enters unobtrusively and unnoticed into the circle of observation, and not directly by means of a demonstrated mistake. Hence, it is the more difficult to discover and has a disturbing influence which makes it very hard to perceive the mistakes that have occurred in consequence of it.

It may be that Leibnitz meant paramnesia with his ``perceptiones insensibiles." Later, Lichtenberg must have had it in mind when he repeatedly asserted that he must have been in the world once before, inasmuch as many things seemed to him so familiar, although, at the time, he had not yet experienced them. Later on, Jessen concerned himself with the question, and Sander[1] asserts him to have been the first. According to Jessen, everybody is familiar with the phenomenon in which the sudden impression occurs, that <p 276> what is experienced has already been met with before so that the future might be predicted. Langwieser asserts that one always has the sensation that the event occurred a long time ago, and Dr. Karl Neuhoff finds that his sensation is accompanied with unrest and contraction. The same thing is discussed by many other authors.[1b]

[1] W. Sander: <U:>ber Erinnerungst<a:>uschungen, Vol. IV of Archiv f<u:>r Psychiatrie u. Nervenkrankheiten.

[1b] Sommer: Zur Analyse der Erinnerungst<a:>uechungen. Beitr<a:>ge zur Psych. d. Aussage, 1. 1903.

Various explanations have been offered. Wigand and Maudsley think they see in paramnesia a simultaneous functioning of both relations. Anje believes that illusory memory depends on the differentiation which sometimes occurs between perception and coming−into−consciousness. According to K<u:>lpe, these are the things that Plato interpreted in his doctrine of pre−existence.

Sully,[2] in his book on illusions, has examined the problem most thoroughly and he draws simple conclusions. He finds that vivacious children often think they have experienced what is told them. This, however, is retained in the memory of the adult, who continues to think that he has actually experienced it. The same thing is true when children have intensely desired anything. Thus the child− stories given us by Rousseau, Goethe, and De Quincey, must come from the airy regions of the dream life or from waking revery, and Dickens has dealt with this dream life in ``David Copperfield." Sully adds, that we also generate illusions of memory when we assign to experiences false dates, and believe ourselves to have felt, as children, something we experienced later and merely set back into our childhood.

[2] James Sully: Illusions. London.

So again, he reduces much supposed to have been heard, to things that have been read. Novels may make such an impression that what has been read or described there appears to have been really experienced. A name or region then seems to be familiar because we have read of something similar.

It will perhaps be proper not to reduce all the phenomena of paramnesia to the same conditions. Only a limited number of them seem to be so reducible. Impressions often occur which one is inclined to attribute to illusory memory, merely to discover later that they were real but unconscious memory; the things had been actually experienced and the events had been forgotten. So, for example, I visit some region for the first time and get the impression that I have seen it before, and since this, as a matter of fact, is not the case, I believe myself to have suffered from an illusion of memory. <p 277> Later, I perceive that perhaps in early childhood I had really been in a country that resembled this one. Thus my memory was really correct; I had merely forgotten the experience to which it referred.

Aside from these unreal illusions of memory, many, if not all others, are explicable, as Sully indicates, by the fact that something similar to what has been experienced, has been read or heard, while the fact that it has been read or heard is half forgotten or has sunk into the subconsciousness. Only the sensation has remained, not the recollection that it was read, etc. Another part of this phenomenon may possibly be explained by vivid dreams, which also leave strong impressions without leaving the memory of their having been dreams. Whoever is in the habit of dreaming vividly will know how it is possible to have for days a clear or cloudy feeling of the discovery of something excellent or disturbing, only to find out later that there has been no real experience, only a dream. Such a feeling, especially the memory of things seen or heard in dreams, may remain in consciousness. If, later, some similar matter is really met with, the sensation may appear as a past event.[1] This is all the easier since dreams are never completely rigid, but easily modeled and adaptable, so that if there is the slightest approximation to similarity, memory of a dream lightly attaches itself to real experience.

[1] H Gross's Archiv I, 261, 335.

All this may happen to anybody, well or ill, nervous or stolid. Indeed, Kr<a:>pelin asserts that paramnesia occurs only under normal circumstances. It may also be generally assumed that a certain fatigued condition of the mind or of the body renders this occurrence more likely, if it does not altogether determine it. So far as self− observation throws any light on the matter, this statement appears to be correct. I had such illusions of memory most numerously during the Bosnian war of occupation of 1878, when we made our terrible forced marches from Esseg to Sarajevo. The illusions appeared regularly after dinner, when we were quite tired. Then the region which all my preceding life I had not seen, appeared to be pleasantly familiar, and when once, at the very beginning, I received the order to storm a village occupied by Turks, I thought it would not be much trouble, I had done it so frequently and nothing had ever happened. At that time we were quite exhausted. Even when we had entered the otherwise empty village this extraordinary circumstance did not impress me, and I thought that the inside of <p 278> a village always looked like that−−although I had never before seen such a Turkish street−hotel ``in nature'' or pictured.

Another mode of explanation may be mentioned, i. e., explanation by heredity. Hering[1] and Sully have dealt with it. According to the latter, especially, we may think that we have undergone some experience that really belongs to some ancestor. Sully believes that this contention can not be generically contradicted because a group of skilled activities (nest−building, food−seeking, hiding from the enemy, migration, etc.) have been indubitably inherited from the animals, but on the other hand, that paramnesia is inherited memory can be proved only with, e. g., a child which had been brought up far from the sea but whose parents and grandparents had been coast−dwellers. If that child should at first sight have the feeling that he is familiar with the sea, the inheritance of memory would be proved. So long as we have not a larger number of such instances the assumption of hereditary influence is very suggestive but only probable.

[1] E. Hering: <U:>ber das Ged<a:>chtnis, etc. Vienna 1876.

With regard to the bearing of memory−illusions on criminal cases I shall cite only one possible instance. Somebody just waking from sleep has perceived that his servant is handling his purse which is lying on the night−table, and in consequence of the memory−illusion he believes that he has already observed this many times before. The action of the servant was perhaps harmless and in no way directed toward theft. Now the evidence of the master is supposed to demonstrate that this has repeatedly occurred, then perhaps no doubt arises that the servant has committed theft frequently and has had the intention of doing so this time.

To generalize this situation would be to indicate that illusions of memory are always likely to have doubtful results when they have occurred only once and when the witness in consequence of paramnesia believes the event to have been repeatedly observed. It is not difficult to think of numbers of such cases but it will hardly be possible to say how the presence of illusions of memory is to be discovered without the knowledge _*that_ they exist.

When we consider all the qualities and idiosyncrasies of memory, this so varied function of the mind, we must wonder that its estimation in special cases is frequently different, although proceeding from a second person or from the very owner of the questionable memory. Sully finds rightly, that one of the keenest tricks in fighting deep− <p 279> rooted convictions is to attack the memory of another with regard to its reliability. Memory is the private domain of the individual. From the secret council−chamber of his own consciousness, into which no other may enter, it draws all its values.

The case is altered, however, when a man speaks of his personal memory. It must then assume all the deficiencies which belong to other mental powers. We lawyers, especially, hear frequently from witnesses: ``My memory is too weak to answer this question," ``Since receiving the wound in question my memory has failed," ``I am already too old, my memory is leaving me," etc. In each of these cases, however, it is not the memory that is at fault. As a matter of fact the witness ought to have said ``I am too stupid to answer this question," ``Since the wound in question, my intellectual powers have failed," ``I am already old, I am growing silly," etc. But of course no one will, save very rarely, underestimate his good sense, and it is more comfortable to assign its deficiencies to the memory. This occurs not only in words but also in construction. If a man has incorrectly reproduced any matter, whether a false observation, or a deficient combination, or an unskilled interpretation of facts, he will not blame these things but will assign the fault to memory. If he is believed, absolutely incorrect conclusions may result.

Section 56. (e) Mnemotechnique.

Just a few words concerning mnemotechnique, mnemonic, and anamnestic. The discovery of some means of helping the memory has long been a human purpose. From Simonides of Chios, to the Sophist Hippias of Elis, experiments have been made in artificial development of the memory, and some have been remarkably successful. Since the middle ages a large group of people have done this. We still have the figures of the valid syllogisms in logic, like Barbara, etc. The rules for remembering in the Latin grammar, etc., may still be learned with advantage. The books of Kothe and others, have, in their day, created not a little discussion.

As a rule, modern psychology pays a little attention to memory devices. In a certain sense, nobody can avoid mnemonic, for whenever you tie a knot in your handkerchief, or stick your watch into your pocket upside down, you use a memory device. Again, whenever you want to bear anything in mind you reduce difficulties and bring some kind of order into what you are trying to retain. <p 280>

Thus, some artificial grip on the object is applied by everybody, and the utility and reliability of this grip determines the trustworthiness of a man's memory. This fact may be important for the criminal lawyer in two ways. On the one hand, it may help to clear up misunderstandings when false mnemonic has been applied. Thus, once somebody called an aniline dye, which is soluble in water and is called ``nigrosin," by the name ``moorosin," and asked for it under that name in the store. In order to aid his memory he had associated it with the word for black man = niger = negro = moor, and thus had substituted moor for nigro in the construction of

the word he wanted. Again, somebody asked for the ``Duke Salm" or the ``Duke Schmier." The request was due to the fact that in the Austrian dialect *salve* is pronounced like salary and the colloquial for ``salary" is ``schmier" (to wipe). Dr. Ernst Lohsing tells me that he was once informed that a Mr. Schnepfe had called on him, while, as a matter of fact the gentleman's name was Wachtel. Such misunderstandings, produced by false mnemonic, may easily occur during the examination of witnesses. They are of profound significance. If once you suspect that false memory has been in play, you may arrive at the correct idea by using the proper synonyms and by considering similarly−pronounced words. If attention is paid to the determining conditions of the special case, success is almost inevitable.

The second way in which false mnemotechnique is important is that in which the technique was correct, but in which the key to the system has been lost, i. e., the witness has forgotten how he proceeded. Suppose, for example, that I need to recall the relation of the ages of three people to each other. Now, if I observe that M is the oldest, N the middle one, and O the youngest, I may suppose, in order to help my memory, that their births followed in the same order as their initials, M, N, O. Now suppose that at another time, in another case I observe the same relation but find the order of the initials reversed O N, M. If now, in the face of the facts, I stop simply with this technique, I may later on substitute the two cases for each other. Hence, when a witness says anything which appears to have been difficult to remember, it is necessary to ask him how he was able to remember it. If he assigns some aid to memory as the reason, he must be required to explain it, and he must not be believed unless it is found reliable. If the witness in the instance above, for example, says, ``I never make use of converse relations," then his testimony will seem comparatively trustworthy. And it is not <p 281> difficult to judge the degree of reliability of any aid to memory whatever.

Great liars are frequently characterized by their easy use of the most complicated mnemotechnique. They know how much they need it.

Topic 7. THE WILL.

Section 57.

Of course, we do not intend to discuss here either the ``will" of the philosopher, or the ``malice" or ``ill−will" of criminal law, nor yet the ``freedom of the will" of the moralist. We aim only to consider a few facts that may be of significance to the criminal lawyer. Hence, we intend by ``will" only what is currently and popularly meant. I take will to be the _*inner_ effect of the more powerful impulses, while action is the _*external_ effect of those impulses. When Hartmann says that will is the transposition of the ideal into the real, he sounds foolish, but in one sense the definition is excellent. You need only understand by ideal that which does not yet exist, and by real that which is a fact and actual. For when I voluntarily compel myself to think about some subject, something has actually happened, but this event is not ``real" in the ordinary sense of that word. We are to bear in mind, however, that Locke warned us against the contrast between intelligence and will, as real, spiritual essences, one of which gives orders and the other of which obeys. From this conception many fruitless controversies and confusions have arisen. In this regard, we criminalists must always remember how often the common work of will and intelligence opposes us in witnesses and still more so in defendants, causing us great difficulties. When the latter deny their crime with iron fortitude and conceal their guilt by rage, or when for months they act out most difficult parts with wonderful energy, we must grant that they exhibit aspects of the will which have not yet been studied. Indeed, we can make surprising observations of how effectively prisoners control the muscles of their faces, which are least controllable by the will. The influence the will may have on a witness's power even to flush and grow pale is also more extensive than may be established scientifically. This can be learned from quite remote events. My son happens to have told me that at one time he found himself growing pale with cold, and as under the circumstance he was afraid of being accused of lacking courage to pursue his task, he tried with all his power to <p 282> suppress his pallor, and succeeded perfectly. Since then, at court, I have seen a rising blush or beginning pallor suppressed completely; yet this is theoretically impossible.

But the will is also significant in judging the man as a whole. According to Drobisch,[1] the abiding qualities and ruling ``set'' of a man's volition constitute his character. Not only inclination, and habits, and guiding principles determine the character, but also meanings, prejudices, convictions, etc. of all kinds. Since, then, we can not avoid studying the character of the individual, we must trace his volitions and desires. This in itself is not difficult; the idea of his character develops spontaneously when so traced. But the will contains also the characteristic signs of difference which are important for our purposes. We are enabled to work intelligently and clearly only by our capacity for distinguishing indifferent, from criminal and logically interpretable deeds. Nothing makes our work so difficult as the inconceivably superfluous mass of details. Not every deed or activity is an action; only those are such which are determined by will and knowledge. So Abegg[2] teaches us, what is determined by means of the will may be discovered by analysis.

Of course, we must find the proper approach to this subject and not get lost in the libertarian−deterministic quarrel, which is the turning−point in contemporary criminal law. Forty years ago Renan said that the error of the eighteenth century lay generally in assigning to the free and self−conscious will what could be explained by means of the natural effects of human powers and capacities. That century understood too little the theory of instinctive activity. Nobody will claim that in the transposition of willing into the expression of human capacity, the question of determinism is solved. The solution of this question is not our task. We do get an opening however through which we can approach the criminal,−−not by having to examine the elusive character of his will, but by apprehending the intelligible expression of his capacity. The weight of our work is set on the application of the concept of causality, and the problem of free−will stands or falls with that.

[1] M. W. Drobisch: Die moralische Statistik. Leipzig 1867.

[2] Neues Archiv des Kriminal−Rechts. Vol. 14.

Bois−Reymond in his ``Limits of the Knowledge of Nature'' has brought some clearness into this problem: ``Freedom may be denied, pain and desire may not; the appetite which is the stimulus to action necessarily precedes sense−perception. The problem, therefore, is that of sense−perception, and not as I had said a minute <p 283> ago, that of the freedom of the will. It is to the former that analytic mechanics may be applied.'' And the study of sense−perception is just what we lawyers may be required to undertake.

Of course, it is insufficient merely to study the individual manifestations of human capacities, for these may be accidental results or phenomena, determined by unknown factors. Our task consists in attaining abstractions in accord with careful and conscientious perceptions, and in finding each determining occasion in its particular activities.

According to Drobisch, ``maxims and the subjective principles of evolution are, as Kant calls them, laws of general content required to determine our own volitions and actions. Then again, they are rules of our own volition and action which we ourselves construct, and which hence are subjectively valid. When these maxims determine our future volitions and actions they are postulates.'' We may, therefore, say that we know a man when we know his will, and that we know his will when we know his maxims. By means of his maxims we are able to judge his actions.

But we must not reconstruct his maxims theoretically. We must study everything that surrounds, alters, and determines him, for it is at this point that a man's environments and relationships most influence him. As Grohmann said, half a century ago, ``If you could find an elixir, which could cause the vital organs to work otherwise, if you could alter the somatic functions of the body, you would be the master of the will.'' Therefore it is never superfluous to study the individual's environmental conditions, surroundings, all his outer influences. That the effort required in such a study is great, is of course obvious, but the criminal lawyer must make it if he is to perform his task properly.[1]

[1] H. M<u:>nsterberg: Die Willeshandlung and various chapters on will in the psychologies of James,

Topic 8. EMOTION.

Section 58.

Little as emotion, as generally understood, may have to do with the criminalist, it is, in its intention, most important for him. The motive of a series of phenomena and events, both in prisoners and witnesses, is emotion. In what follows, therefore, we shall attempt to show that feeling, in so far as we need to consider it, need not be taken as an especial function. This is only so far significant as to <p 284> make our work easier by limiting it to fewer subjects. If we can reduce some one psychic function to another category we can explain many a thing even when we know only the latter. In any event, the study of a single category is simpler than that of many.[1]

[1] A. Lehman: Die Hauptgesetze des menschlichen Gef<u:>hlsleben. Leipzig 1892.

Abstractly, the word emotion is the property or capacity of the mind to be influenced pleasantly or unpleasantly by sensations, perceptions, and ideas. Concretely, it means the conditions of desire or disgust which are developed by the complex of conditions thereby aroused. We have first to distinguish between the so−called animal and the higher emotions. We will assume that this distinction is incorrect, inasmuch as between these classes there is a series of feelings which may be counted as well with one as with the other, so that the transition is incidental and no strict differentiation is possible. We will, however, retain the distinction, as it is easier by means of it to pass from the simpler to the more difficult emotions. The indubitably animal passions we shall take to be hunger, thirst, cold, etc. These are first of all purely physiological stimuli which act on our body. But it is impossible to imagine one of them, without, at the same time, inevitably bringing in the idea of the defense against this physiological stimulus. It is impossible to think of the feeling of hunger without sensing also the strain to find relief from this feeling, for without this sensation hunger would not appear as such. If I am hungry I go for food; if I am cold I seek for warmth; if I feel pain I try to wipe it out. How to satisfy these desiderative actions is a problem for the understanding, whence it follows that successful satisfaction, intelligent or unintelligent, may vary in every possible degree. We see that the least intelligent−−real cretins−−sometimes are unable to satisfy their hunger, for when food is given the worst of them, they stuff it, in spite of acute sensations of hunger, into their ears and noses, but not into their mouths. We must therefore say that there is always a demand for a minimum quantity of intelligence in order to know that the feeling of hunger may be vanquished by putting food into the mouth.

One step further: In the description of the conduct of anthropoid apes which are kept in menageries, etc., especial intelligence is assigned to those who know how to draw a blanket over themselves as protection against cold. The same action is held to be a sign of intelligence in very young children.

Still more thoroughly graded is the attitude toward pain, inasmuch <p 285> as barely a trace of intelligence is required, in order to know that it is necessary to wipe away a hot liquid drop that has fallen on the body. Every physiological text−book mentions the fact that a decapitated frog makes such wiping movements when it is wet with acid. From this unconscious activity of the understanding to the technically highest−developed treatment of a burn, a whole series of progressively higher expressions of intelligence may be interpolated, a series so great as to defy counting.

Now take another, still animal, but more highly−developed feeling, for example, the feeling of comfort. We lay a cat on a soft bolster−− she stretches herself, spreads and thins herself out, in order to bring as many nerve termini as possible into contact with the pleasant stimuli of the bolster. This behavior of the cat may be construed as instinctive, also as the aboriginal source of the sense of comfort and as leading to luxury in comfort, the stage of comfort which Roscher calls highest. (I. Luxury in eating and drinking. II. Luxury in dress. III. Luxury in comfort.)

Therefore we may say that the reaction of the understanding to the physiological stimulus aims to set it aside when it is unpleasant, and to increase and exhaust it when it is pleasant, and that in a certain sense both coincide (the ousting of unpleasant darkness is equivalent to the introduction of pleasant light). We may therefore say generally, that feeling is a physiological stimulus indivisibly connected with the understanding's sensitive attitude thereto. Of course there is a far cry from instinctive exclusion and inclusion to the most refined defensive preparation or interpretation, but the differences which lie next to each, on either side, are only differences in degree.

Now let us think of some so−called higher feeling and consider a special case of it. I meet for the first time a man who is unpleasantly marked, e. g., with badly colored hair. This stimulates my eyes disagreeably, and I seek either by looking away or by wishing the man away to protect myself from this physiologically−inimical influence, which already eliminates all feeling of friendship for this harmless individual. Now I see that the man is torturing an animal,−−I do not like to see this, it affects me painfully; hence I wish him out of the way still more energetically. If he goes on so, adding one disagreeable characteristic to another, I might break his bones to stop him, bind him in chains to hinder him; I even might kill him, to save myself the unpleasant excitation he causes me. I strain my intelligence to think of some means of opposing him, and clearly, in <p 286> this case, also, physiological stimulus and activity of the understanding are invincibly united.

The emotion of anger is rather more difficult to explain. But it is not like suddenly−exploding hatred for it is acute, while hatred is chronic. I might be angry with my beloved child. But though at the moment of anger, the expression is identical with that of hatred, it is also transitive. In the extremest cases the negating action aims to destroy the stimulus. This is the most radical means of avoiding physiological excitation, and hence I tear in pieces a disagreeable letter, or stamp to powder the object on which I have hurt myself. Where persons are involved, I proceed either directly or symbolically when I can not, or may not, get my hands on the responsible one.

The case is the same with feeling of attraction. I own a dog, he has beautiful lines which are pleasant to my eye, he has a bell− like bark that stimulates my ear pleasantly, he has a soft coat which is pleasant to my stroking hand, I know that in case of need the dog will protect me (and that is a calming consideration), I know that he may be otherwise of use to me−−in short my understanding tells me all kinds of pleasant things about the beast. Hence I like to have him near me; i. e., I like him. The same explanation may be applied to all emotions of inclination or repulsion. Everywhere we find the emotion as physiological stimulus in indivisible union with a number of partly known, partly unknown functions of the understanding. The unknown play an important r<o^>le. They are serial understandings, i. e., inherited from remote ancestors, and are characterized by the fact that they lead us to do the things we do when we recognize intelligently any event and its requirements.

When one gets thirsty, he drinks. Cattle do the same. And they drink even when nobody has told them to, because this is an inherited action of countless years. If a man is, however, to proceed intelligently about his drinking, he will say, ``By drying, or other forms of segregation, the water will be drawn from the cells of my body, they will become arid, and will no longer be sufficiently elastic to do their work. If, now, by way of my stomach, through endosmosis and exosmosis, I get them more water, the proper conditions will return." The consequences of this form of consideration will not be different from the instinctive action of the most elementary of animals−−the wise man and the animal drink. So the whole content of every emotion is physiological stimulation and function of the understanding.

And what good is all this to the criminal lawyer? Nobody <p 287> doubts that both prisoners and witnesses are subject to the powerful influence of emotional expression. Nobody doubts that the determination, interpretation, and judgment of these expressions are as difficult as they are important to the judge. And when we consider these emotions as especial conditions of the mind it is indubitable that they are able to cause still greater difficulty because of their elusiveness, their very various intensity, and their confused effect. Once, however, we think of them as functions of the understanding, we have, in its activities, something better

known, something rather more disciplined, which offers very many fewer difficulties in the judgment concerning the fixed form in which it acts. Hence, every judgment of an emotional state must be preceded by a reconstruction in terms of the implied functions of the understanding. Once this is done, further treatment is no longer difficult.

Topic 9. THE FORMS OF GIVING TESTIMONY.

Section 59.

Wherever we turn we face the absolute importance of language for our work. Whatever we hear or read concerning a crime is expressed in words, and everything perceived with the eye, or any other sense, must be clothed in words before it can be put to use. That the criminalist must know this first and most important means of understanding, completely and in all its refinements, is self− evident. But still more is required of him. He must first of all undertake a careful investigation of the essence of language itself. A glance over literature shows how the earliest scholars have aimed to study language with regard to its origins and character. Yet, who needs this knowledge? The lawyer. Other disciplines can find in it only a scientific interest, but it is practically and absolutely valuable only for us lawyers, who must, by means of language, take evidence, remember it, and variously interpret it. A failure in a proper understanding of language may give rise to false conceptions and the most serious of mistakes. Hence, nobody is so bound as the criminal lawyer to study the general character of language, and to familiarize himself with its force, nature, and development. Without this knowledge the lawyer may be able to make use of language, but failing to understand it, will slip up before the slightest difficulty. There is an exceedingly rich literature open to everybody.[1]

[1] Cf. Darwin: Descent of Man. Jakob Grimm: <U:>ber den Ursprung der Sprache. E. Renan: De l'Origine du Language, etc., etc.

<p 288> Section 60. (a) General Study of Variety in Forms of Expression.

Men being different in nature and bringing−up on the one hand, and language, being on the other, a living organism which varies with its soil, i. e., with the human individual who makes use of it, it is inevitable that each man should have especial and private forms of expression. These forms, if the man comes before us as witness or prisoner, we must study, each by itself. Fortunately, this study must be combined with another that it implies, i. e., the character and nature of the individual. The one without the other is unthinkable. Whoever aims to study a man's character must first of all attend to his ways of expression, inasmuch as these are most significant of a man's qualities, and most illuminating. A man is as he speaks. It is not possible, on the other hand, to study modes of expression in themselves. Their observation requires the study of a group of other conditions, if the form of speech is to be explained, or its analysis made even possible. Thus, one is involved in the other, and once you know clearly the tricks of speech belonging to an individual, you also have a clear conception of his character and conversely. This study requires, no doubt, considerable skill. But that is at the command of anybody who is devoted to the lawyer's task.

Tylor is correct in his assertion, that a man's speech indicates his origin much less than his bringing−up, his education, and his power. Much of this fact is due to the nature of language as a living growth and moving organism which acquires new and especial forms to express new and especial events in human life. Geiger[1] cites the following example of such changes in the meaning of words. ``Mriga" means in Sanscrit, ``wild beast;" in Zend it means merely ``bird," and the equivalent Persian term ``mrug" continues to mean only ``bird," so that the barnyard fowls, song−birds, etc., are now called ``mrug." Thus the first meaning, ``wild animal" has been transmuted into its opposite, ``tame animal." In other cases we may incorrectly suppose certain expressions to stand for certain things. We say, ``to bake bread, to bake cake, to bake certain meats," and then again, ``to roast apples, to roast potatoes, to roast certain meats." We should laugh if some foreigner told us that he had ``roasted" bread.

[1] Ursprung u. Eutwieklung der Sprache. Stuttgart, 1869.

These forms of expression have, as yet, no relation to character, <p 289> but they are the starting−point of quite characteristic modes which establish themselves in all corporations, groups, classes, such as students, soldiers, hunters, etc., as well as among the middle classes in large cities. Forms of this kind may become so significant that the use of a single one of them might put the user in question into jeopardy. I once saw two old gentlemen on a train who did not know each other. They fell into conversation and one told the other that he had seen an officer, while jumping from his horse, trip over his sword and fall. But instead of the word sword he made use of the old couleur−student slang word ``speer," and the other old boy looked at him with shining eyes and cried out ``Well, brother, what color?"

Still more remarkable is the mutation and addition of new words of especially definite meaning among certain classes. The words become more modern, like so much slang.

The especial use of certain forms is individual as well as social. Every person has his private usage. One makes use of ``certainly," another of ``yes, indeed," one prefers ``dark," another ``darkish." This fact has a double significance. Sometimes a man's giving a word a definite meaning may explain his whole nature. How heartless and raw is the statement of a doctor who is telling about a painful operation, ``The patient sang!" In addition, it is frequently necessary to investigate the connotation people like to give certain words, otherwise misunderstandings are inevitable This investigation is, as a rule, not easy, for even when it is simple to bring out what is intended by an expression, it is still quite as simple to overlook the fact that people use peculiar expressions for ordinary things. This occurs particularly when people are led astray by the substitution of similars and by the repetition of such a substitution. Very few persons are able to distinguish between identity and similarity; most of them take these two characters to be equivalent. If A and B are otherwise identical, save that B is a little bigger, so that they appear similar, there is no great mistake if I hold them to be equivalent and substitute B for A. Now I compare B with C, C with D, D with E, etc., and each member of the series is progressively bigger than its predecessor. If now I continue to repeat my first mistake, I have in the end substituted for A the enormously bigger E and the mistake has become a very notable one. I certainly would not have substituted E for A at the beginning, but the repeated substitution of similars has led me to this complete incommensurability. <p 290

Such substitutions occur frequently during the alterations of meanings, and if you wish to see how some remarkable signification of a term has arisen you will generally find it as a progression through gradually remoter similarities to complete dissimilarity. All such extraordinary alterations which a word has undergone in the course of long usage, and for which each linguistic text−book contains numerous examples, may, however, develop with comparative speed in each individual speaker, and if the development is not traced may lead, in the law−court, to very serious misunderstandings.

Substitutions, and hence, sudden alterations, occur when the material of language, especially in primitive tongues, contains only simple differentiations. So Tylor mentions the fact, that the language of the West African Wolofs contains the word ``_d<a'>gou_," to go, ``_d<a'>gou_," to stride proudly; ``d<a'>gana," to beg dejectedly; ``dag<a'>na," to demand. The Mpongwes say, ``m<i!> tonda," I love, and ``mi t<o^>nda," I do not love. Such differentiations in tone our own people make also, and the mutation of meaning is very close. But who observes it at all?

Important as are the changes in the meanings of words, they fall short beside the changes of meaning of the conception given in the mode of exposition. Hence, there are still greater mistakes, because a single error is neither easily noticeable nor traceable. J. S. Mill says, justly, that the ancient scientists missed a great deal because they were guided by linguistic classification. It scarcely occurred to them that what they assigned abstract names to really consisted of several phenomena. Nevertheless, the mistake has been inherited, and people who nowadays name abstract things, conceive, according to their intelligence, now this and now that phenomenon by means of it. Then they wonder at the other fellow's not understanding them. The situation

being so, the criminalist is coercively required, whenever anything abstract is named, first of all to determine accurately what the interlocutor means by his word. In these cases we make the curious discovery that such determination is most necessary among people who have studied the object profoundly, for a technical language arises with just the persons who have dealt especially with any one subject.

As a rule it must be maintained that time, even a little time, makes an essential difference in the conception of any object. Mittermaier, and indeed Bentham, have shown what an influence the interval between observation and announcement exercises on the form of exposition. The witness who is immediately examined may, <p 291> perhaps, say the same thing that he would say several weeks after−− but his presentation is different, he uses different words, he understands by the different words different concepts, and so his testimony becomes altered.

A similar effect may be brought about by the conditions under which the evidence is given. Every one of us knows what surprising differences occur between the statements of the witness made in the silent office of the examining justice and his secretary, and what he says in the open trial before the jury. There is frequently an inclination to attack angrily the witnesses who make such divergent statements. Yet more accurate observation would show that the testimony is essentially the same as the former but that the manner of giving it is different, and hence the apparently different story. The difference between the members of the audience has a powerful influence. It is generally true that reproductive construction is intensified by the sight of a larger number of attentive hearers, but this is not without exception. In the words ``attentive hearers" there is the notion that the speaker is speaking interestingly and well, for otherwise his hearers would not be attentive, and if anything is well done and is known to be well done, the number of the listeners is exciting, inasmuch as each listener is reckoned as a stimulating admirer. This is invariably the case. If anybody is doing a piece of work under observation he will feel pleasant when he knows that he is doing it well, but he will feel disturbed and troubled if he is certain of his lack of skill. So we may grant that a large number of listeners increases reproductive constructivity, but only when the speaker is certain of his subject and of the favor of his auditors. Of the latter, strained attention is not always evidence. When a scholar is speaking of some subject chosen by himself, and his audience listens to him attentively, he has chosen his subject fortunately, and speaks well; the attention acts as a spur, he speaks still better, etc. But this changes when, in the course of a great trial which excites general interest, the witness for the government appears. Strained attention will also be the rule, but it does not apply to him, it applies to the subject. He has not chosen his topic, and no recognition for it is due him−−it is indifferent to him whether he speaks ill or well. The interest belongs only to the subject, and the speaker himself receives, perhaps, the undivided antipathy, hatred, disgust, or scorn, of all the listeners. Nevertheless, attention is intense and strained, and inasmuch as the speaker knows that this does not pertain to him or his merits, it confuses and depresses him. <p 292> It is for this reason that so many criminal trials turn out quite contrary to expectation. Those who have seen the trial only, and were not at the prior examination, understand the result still less when they are told that ``nothing" has altered since the prior examination−−and yet much has altered; the witnesses, excited or frightened by the crowd of listeners, have spoken and expressed themselves otherwise than before until, in this manner, the whole case has become different.

In a similar fashion, some fact may be shown in another light by the manner of narration used by a particular witness. Take, as example, some energetically influential quality like humor. It is self−evident that joke, witticism, comedy, are excluded from the court−room, but if somebody has actually introduced real, genuine humor by way of the dry form of his testimony, without having crossed in a single word the permissible limit, he may, not rarely, narrate a very serious story so as to reduce its dangerous aspect to a minimum. Frequently the testimony of some funny witness makes the rounds of all the newspapers for the pleasure of their readers. Everybody knows how a really humorous person may so narrate experiences, doubtful situations of his student days, unpleasant traveling experiences, difficult positions in quarrels, etc., that every listener must laugh. At the same time, the events told of were troublesome, difficult, even quite dangerous. The narrator does not in the least lie, but he manages to give his story the twist that even the victim of the situation is glad to laugh at.[1] As Kr<a:>pelin says, ``The task of humor is to rob a large portion of human misfortune of its wounding power. It does so by presenting to us, with our fellows as samples, the comedy of the innumerable

stupidities of human life."

[1] E. Regnault: La Langage par Gestes. La Nature XXVI, 315.

Now suppose that a really humorous witness tells a story which involves very considerable consequences, but which he does not really end with tragic conclusions. Suppose the subject to be a great brawl, some really crass deception, some story of an attack on honor, etc. The attitude toward the event is altered with one turn, even though it would seem to have been generated progressively by ten preceding witnesses and the new view of the matter makes itself valid at least mildly in the delivery of the sentence. Then whoever has not heard the whole story understands the results least of all.

In the same way we see really harmless events turned into tragedies <p 293> by the testimony of a black−visioned, melancholy witness, without his having used, in this case or any other, a single untrue word. In like manner the bitterness of a witness who considers his personal experiences to be generally true, may color and determine the attitude of some, not at all serious, event. Nor is this exaggeration. Every man of experience will, if he is only honest enough, confirm the fact, and grant that he himself was among those whose attitude has been so altered; I avoid the expression−−``duped."

It is necessary here, also, to repeat that the movements of the hands and other gestures of the witnesses while making their statements will help much to keep the correct balance. Movements lie much less frequently than words.[1]

[1] Paragraph omitted.

Another means of discovering whether a witness is not seduced by his attitude and his own qualities is the careful observation of the impression his narrative makes on himself. Stricker has controlled the conditions of speech and has observed that so long as he continued to bring clearly described complexes into a causal relation, _*satisfactory to him_, he could excite his auditors; as soon as he spoke of a relation which _*did not_ satisfy him the attitude of the audience altered. We must invert this observation; we are the auditors of the witness and must observe whether his own causal connections satisfy him. So long as this is the case, we believe him. When it fails to be so he is either lying, or he himself knows that he is not expressing himself as he ought to make us correctly understand what he is talking about.

Section 61. (b) Dialect Forms.

What every criminal lawyer must unconditionally know is the dialect of those people he has most to deal with. This is so important that I should hold it conscienceless to engage in the profession of criminology without knowing the dialects. Nobody with experience would dispute my assertion that nothing is the cause of so great and so serious misunderstandings, of even inversions of justice, as ignorance of dialects, ignorance of the manner of expression of human groups. Wrongs so caused can never be rectified because their primary falsehood starts in the protocol, where no denial, no dispute and redefinition can change them.

It is no great difficulty to learn dialects, if only one is not seduced <p 294> by comic pride and foolish ignorance of his own advantage into believing that popular speech is something low or common. Dialect has as many rights as literary language, is as living and interesting an organism as the most developed form of expression. Once the interest in dialect is awakened, all that is required is the learning of a number of meanings. Otherwise, there are no difficulties, for the form of speech of the real peasant (and this is true all over the world), is always the simplest, the most natural, and the briefest. Tricks, difficult construction, circumlocutions are unknown to the peasant, and if he is only left to himself he makes everything definite, clear, and easily intelligible.

There are many more difficulties in the forms of expression of the uncultivated city man, who has snapped up

a number of uncomprehended phrases and tries to make use of them because of their suppositious beauty, regardless of their fitness. Unpleasant as it is to hear such a screwed and twisted series of phrases, without beginning and without end, it is equally difficult to get a dear notion of what the man wanted to say, and especially whether the phrases used were really brought out with some purpose or simply for the sake of showing off, because they sound ``educated."

In this direction nothing is more significant than the use of the imperfect in countries where its use is not customary and where as a rule only the perfect is used; not ``I was going," but ``I have gone" (went). In part the reading of newspapers, but partly also the unfortunate habit of our school teachers, compel children to the use of the imperfect, which has not an iota more justification than the perfect, and which people make use of under certain circumstances, i. e., when they are talking to educated people, and then only before they have reached a certain age.

I confess that I regularly mistrust a witness who makes use of an imperfect or some other form not habitual to him. I presuppose that he is a weak−minded person who has allowed himself to be persuaded; I believe that he is not altogether reliable because he permits untrue forms to express his meaning, and I fear that he neglects the content for the sake of the form. The simple person who quietly and without shame makes use of his natural dialect, supplies no ground for mistrust.

There are a few traits of usage which must always be watched. First of all, all dialects are in certain directions poorer than the literary language. E. g., they make use of fewer colors. The blue grape, the red wine, may be indicated by the word black, the light <p 295> wine by the word white. Literary language has adopted the last term from dialect. Nobody says water−colored or yellow wine, although nobody has ever yet seen white wine. Similarly, no peasant says a ``brown dog," a ``brown−yellow cow"−−these colors are always denoted by the word red. This is important in the description of clothes. There is, however, no contradiction between this trait and the fact that the dialect may be rich in terms denoting objects that may be very useful, e. g. the handle of a tool may be called handle, grasp, heft, stick, clasp, etc.

When foreign words are used it is necessary to observe in what tendency, and what meaning their adoption embodies.[1]

[1] Paragraph omitted.

The great difficulty of getting uneducated people to give their testimony in direct discourse is remarkable. You might ask for the words of the speaker ten times and you always hear, ``He told me, I should enter," you never hear ``He told me, `Go in.' " This is to be explained by the fact, already mentioned, that people bear in mind only the meaning of what they have heard. When the question of the actual words is raised, the sole way to conquer this disagreeable tendency is to develop dialogue and to say to the witness, ``Now you are A and I am B; how did it happen?" But even this device may fail, and when you finally do compel direct quotation, you can not be certain of its reliability, for it was too extraordinary for the witness to quote directly, and the extraordinary and unhabitual is always unsafe.

What especially wants consideration in the real peasant is his silence. I do not know whether the reasons for the silence of the countrymen all the world over have ever been sought, but a gossiping peasant is rare to find. This trait is unfortunately exhibited in the latter's failure to defend himself when we make use of energetic investigation. It is said that not to defend yourself is to show courage, and this may, indeed, be a kind of nobility, a disgust at the accusation, or certainty of innocence, but frequently it is mere incapacity to speak, and inexperienced judges may regard it as an expression of cunning or conviction. It is wise therefore, in this connection, not to be in too great a hurry, and to seek to understand clearly the nature of the silent person. If we become convinced that the latter is by nature uncommunicative, we must not wonder that he does not speak, even when words appear to be quite necessary.

In certain cases uneducated people must be studied from the same <p 296> point of view as children. Geiger[1] speaks of a child who knew only one boy, and all the other boys were Otho to him because this first boy was called Otho. So the recruit at the Rhine believed that in his country the Rhine was called Donau. The child and the uneducated person can not subordinate things under higher concepts. Every painted square might be a bon−bon, and every painted circle a plate. New things receive the names of old ones. And frequently the skill of the criminalists consists in deriving important material from apparently worthless statements, by way of discovering the proper significance of simple, inartistic, but in most cases excellently definitive images. It is of course self−evident that one must absolutely refrain from trickery.

[1] Der Ursprung der Sprache. Stuttgart 1869.

Section 62. (c) Incorrect Forms of Expression.

If it is true that by the earnest and repeated study of the meanings of words we are likely to find them in the end containing much deeper sense and content than at the beginning, we are compelled to wonder that people are able to understand each other at all. For if words do not have that meaning which is obvious in their essential denotation, every one who uses them supplies according to his inclination, and status the ``deeper and richer sense." As a matter of fact many more words are used pictorially than we are inclined to think. Choose at random, and you find surprisingly numerous words with exaggerated denotations. If I say, ``I posit the case, I press through, I jump over, the proposition, etc.," these phrases are all pictures, for I have posited nothing, I have pressed through no obstacle, and have jumped over no object. My words, therefore, have not stood for anything real, but for an image, and it is impossible to determine the remoteness of the latter from the former, or the variety of direction and extent this remoteness may receive from each individual. Wherever images are made use of, therefore, we must, if we are to know what is meant, first establish how and where the use occurred. How frequently we hear, e. g., of a ``four−cornered" table instead of a square table; a ``very average" man, instead of a man who is far below the average. In many cases this false expression is half−consciously made for the purpose of beautifying a request or making it appear more modest. The smoker says: ``May I have some light," although you know that it is perfectly indifferent whether much or <p 297> little light is taken from the cigar. ``May I have just a little piece of roast," is said in order to make the request that the other fellow should pass the heavy platter seem more modest. And again: ``Please give me a little water," does not modify the fact that the other fellow must pass the whole water flask, and that it is indifferent to him whether afterwards you take much or little water. So, frequently, we speak of borrowing or lending, without in the remotest thinking of returning. The student says to his comrade, ``Lend me a pen, some paper, or some ink," but he has not at all any intention of giving them back. Similar things are to be discovered in accused or witnesses who think they have not behaved properly, and who then want to exhibit their misconduct in the most favorable light. These beautifications frequently go so far and may be made so skilfully that the correct situation may not be observed for a long time. Habitual usage offers, in this case also, the best examples. For years uncountable it has been called a cruel job to earn your living honestly and to satisfy the absolute needs of many people by quickly and painlessly slaughtering cattle. But, when somebody, just for the sake of killing time, because of ennui, shoots and martyrs harmless animals, or merely so wounds them that if they are not retrieved they must die terrible deaths, we call it noble sport. I should like to see a demonstration of the difference between killing an ox and shooting a stag. The latter does not require even superior skill, for it is much more difficult to kill an ox swiftly and painlessly than to shoot a stag badly, and even the most accurate shot requires less training than the correct slaughter of an ox. Moreover, it requires much more courage to finish a wild ox than to destroy a tame and kindly pheasant. But usage, once and for all, has assumed this essential distinction between men, and frequently this distinction is effective in criminal law, without our really seeing how or why. The situation is similar in the difference between cheating in a horse trade and cheating about other commodities. It occurs in the distinction between two duellists fighting according to rule and two peasant lads brawling with the handles of their picks according to agreement. It recurs again in the violation of the law by somebody ``nobly inspired with champagne," as against its violation by some ``mere" drunkard. But usage has a favoring, excusing intent for the first series, and an accusing, rejecting intent for the latter series. The different points of view from which various events are seen are the consequence of the

varieties of the usage which first distinguished the view−points from one another. <p 298>

There is, moreover, a certain dishonesty in speaking and in listening where the speaker knows that the hearer is hearing a different matter, and the hearer knows that the speaker is speaking a different matter. As Steinthal[1] has said, ``While the speaker speaks about things that he does not believe, and the reality of which he takes no stock in, his auditor, at the same time, knows right well what the former has said; he understands correctly and does not blame the speaker for having expressed himself altogether unintelligibly." This occurs very frequently in daily routine, without causing much difficulty in human intercourse, but it ought, for this reason, to occur inversely in our conversation with witnesses and accused. I know that the manner of speaking just described is frequently used when a witness wants to clothe some definite suspicion without expressing it explicitly. In such cases, e. g., the examiner as well as the witness believes that X is the criminal. For some reason, perhaps because X is a close relation of the witness or of ``the man higher up," neither of them, judge nor witness, wishes to utter the truth openly, and so they feel round the subject for an interminable time. If now, both think the same thing, there results at most only a loss of time, but no other misfortune. When, however, each thinks of a different object, e. g., each thinks of another criminal, but each believes mistakenly that he agrees with the other, their separating without having made explicit what they think, may lead to harmful misunderstandings. If the examiner then believes that the witness agrees with him and proceeds upon this only apparently certain basis, the case may become very bad. The results are the same when a confession is discussed with a suspect, i. e., when the judge thinks that the suspect would like to confess, but only suggests confession, while the latter has never even thought of it. The one thing alone our work permits of is open and clear speaking; any confused form of expression is evil.

[1] Cf. Zeitschrift fur V<o:>lkeranthropologie. Vol. XIX. 1889. ``Wie denkt das yolk <u:>ber die Sprache?"

Nevertheless, confusions often occur involuntarily, and as they can not be avoided they must be understood. Thus, it is characteristic to understand something unknown in terms of some known example, i. e., the Romans who first saw an elephant, called it ``bos lucani." Similarly ``wood−dog" = wolf; ``sea−cat" = monkey, etc. These are forms of common usage, but every individual is accustomed to make such identifications whenever he meets with any strange object. He speaks, therefore, to some degree in images, <p 299> and if his auditor is not aware of the fact he can not understand him. His speaking so may be discovered by seeking out clearly whether and what things were new and foreign to the speaker. When this is learned it may be assumed that he will express himself in images when considering the unfamiliar object. Then it will not be difficult to discover the nature and source of the images.

Similar difficulties arise with the usage of foreign terms. It is of course familiar that their incorrect use is not confined to the uneducated. I have in mind particularly the weakening of the meaning in our own language. The foreign word, according to Volkmar, gets its significance by robbing the homonymous native word of its definiteness and freshness, and is therefore sought out by all persons who are unwilling to call things by their right names. The ``*triste* position" is far from being so sad as the ``sad" position. I should like to know how a great many people could speak, if they were not permitted to say *malheur*, _m<e'>chant_, *perfide*, etc.−−words by means of which they reduce the values of the terms at least a degree in intensity of meaning. The reason for the use of these words is not always the unwillingness of the speaker to make use of the right term, but really because it is necessary to indicate various degrees of intensity for the same thing without making use of attributes or other extensions of the term. Thus the foreign word is in some degree introduced as a technical expression. The direction in which the native word weakens, however, taken as that is intended by the individual who uses its substitute, is in no sense universally fixated. The matter is entirely one of individual usage and must be examined afresh in each particular case.

The striving for abbreviated forms of expression,−−extraordinary enough in our gossipy times,−−manifests itself in still another direction. On my table, e. g., there is an old family journal, ``From Cliff to Sea." What should the title mean? Obviously the spatial distribution of the subject of its contents and its subscribers−−i. e., ``round about the whole earth," or ``Concerning all lands and all peoples." But such titles would be too

long; hence, they are synthesized into, ``From Cliff to Sea," without the consideration that cliffs often stand right at the edge of the sea, so that the distance between them may be only the thickness of a hair:−−cliff and sea are not local opposites.

Or: my son enters and tells me a story about an ``old semester." By ``old semester" he means an old student who has spent many terms, at least more than are required or necessary, at the university. <p 300> As this explanation is too long, the whole complex is contracted into ``old semester," which is comfortable, but unintelligible to all people not associated with the university. These abbreviations are much more numerous than, as a rule, they are supposed to be, and must always be explained if errors are to be avoided. Nor are silent and monosyllabic persons responsible for them; gossipy individuals seek, by the use of them, to exhibit a certain power of speech. Nor is it indifferent to expression when people in an apparently nowise comfortable fashion give approximate circumlocutive figures, e. g., _half−a−dozen_, four syllables, instead of the monosyllable _six_; or ``the bell in the dome at St. Stephen's has as many nicks as the year has days," etc. It must be assumed that these circumlocutive expressions are chosen, either because of the desire to make an assertion general, or because of the desire for some mnemonic aid. It is necessary to be cautious with such statements, either because, as made, they only ``round out" the figures or because the reliability of the aid to memory must first be tested. Finally, it is well−known that foreign words are often changed into senseless words of a similar sound. When such unintelligible words are heard, very loud repeated restatement of the word will help in finding the original.

TITLE B. DIFFERENTIATING CONDITIONS OF GIVING TESTIMONY.

Topic I. GENERAL DIFFERENCES.

(a) Woman.

Section 63. (I) *General Considerations*.[1]

[1] For the abnormal see−−N<a:>cke: Verbrechen und Wahnsinn beim Weibe Leipzig 1894.

One of the most difficult tasks of the criminalist who is engaged in psychological investigation is the judgment of woman. Woman is not only somatically and psychically rather different from man; man never is able wholly and completely to put himself in her place. In judging a male the criminalist is dealing with his like, made of the same elements as he, even though age, conditions of life, education, and morality are as different as possible. When the criminalist is to judge a gray−beard whose years far outnumber his own, he still sees before him something that he may himself become, built as he, but only in a more advanced stage. When he is studying a boy, he knows what he himself felt and thought as boy. For we <p 301> never completely forget attitudes and judgments, no matter how much time has elapsed−−we no longer grasp them en masse, but we do not easily fail to recall how they were constructed. Even when the criminalist is dealing with a girl before puberty he is not without some point of approach for his judgment, since boys and girls are at that period not so essentially different as to prevent the drawing of analogous inferences by the comparison of his own childhood with that of the girl.

But to the nature of woman, we men totally lack avenues of approach. We can find no parallel between women and ourselves, and the greatest mistakes in criminal law were made where the conclusions would have been correct if the woman had been a man.[1] We have always estimated the deeds and statements of women by the same standards as those of men, and we have always been wrong. That woman is different from man is testified to by the anatomist, the physician, the historian, the theologian, the philosopher; every layman sees it for himself. Woman is different in appearance, in manner of observation, of judgment, of sensation, of desire, of efficacy,−−but we lawyers punish the crimes of woman as we do those of man, and we count her testimony as we do that of man. The present age is trying to set aside the differences in sex and to level them, but it forgets that the law of causation is valid here also. Woman and man have different bodies, hence they must

have different minds. But even when we understand this, we proceed wrongly in the valuation of woman. We can not attain proper knowledge of her because we men were never women, and women can never tell us the truth because they were never men.

[1] H. Marion: Psychologie de la Femme. Paris 1900.

Just as a man is unable to discover whether he and his neighbor call the same color red, so, eternally, will the source of the indubitably existent differences in the psychic life of male and female be undiscovered. But if we can not learn to understand the essence of the problem of the eternal feminine, we may at least study its manifestations and hope to find as much clearness as the difficulty of the subject will permit. An essential, I might say, unscientific experience seems to come to our aid here. In this matter, we trust the real researches, the determinations of scholars, much less than the conviction of the people, which is expressed in maxims, legal differences, usage, and proverbs. We instinctively feel that the popular conception presents the experience of many hundreds of years, experiences of both men and women. So that we may assume that the mistakes of the <p 302> observations of individuals have corrected each other as far as has been possible, and yield a kind of average result. Now, even if averages are almost always wrong, either because they appear too high or too low, the mistake is not more than half a mistake. If in a series of numbers the lowest was 4, the highest 12, and the average 8, and if I take the latter for the individual problem, I can at most have been mistaken about four, never about eight, as would have been the case if I had taken 4 or 12 for each other. The attitude of the people gives us an average and we may at least assume that it would not have maintained itself, either as common law or as proverb, if centuries had not shown that the mistake involved was not a very great one.

In any event, the popular method was comparatively simple. No delicate distinctions were developed. A general norm of valuation was applied to woman and the result showed that woman is simply a less worthy creature. This conception we find very early in the history of the most civilized peoples, as well as among contemporary backward nations and tribes. If, now, we generally assume that the culture of a people and the position of its women have the same measure, it follows only that increasing education revealed that the simple assumption of the inferiority of woman was not correct, that the essential difference in psyche between man and woman could not be determined, and that even today, the old conception half unconsciously exercises an influence on our valuation of woman, when in any respect we are required to judge her. Hence, we are in no wise interested in the degree of subordination of woman among savage and half−savage peoples, but, on the other hand, it is not indifferent for us to know what the situation was among peoples and times who have influenced our own culture. Let us review the situation hastily.

A number of classical instances which are brought together by Fink[1] and Smith,[2] show how little the classic Greek thought of woman, and W. Becker[3] estimates as most important the fact that the Greek always gave precedence to children and said, <gr tecna cai> <gr gunaicas>." The Greek naturalists, Hippocrates and Aristotle, modestly held woman to be half human, and even the poet Homer is not free from this point of view (cf. the advice of Agamemnon to Odysseus). Moreover, he speaks mostly concerning the scan− <p 303> dalmongering and lying of women, while later, Euripides directly reduces the status of women to the minimum (cf. Iphigenia).

[1] Romantic Love and Personal Beauty. H. Fink. London 1887.

[2] Dictionary of Christian Antiquities.

[3] Bilder altgriechischer Sitte.

The attention of ancient Rome is always directed upon the puzzling, sphinx−like, unharmonious qualities in woman. Horace gives it the clearest expression, e. g., ``Desinite in piscem mulier formosa superne."

The Orientals have not done any better for us. The Chinese assert that women have no souls. The Mohammedan believes that women are denied entrance to paradise, and the Koran (xliii, 17) defines the woman as a creature which grows up on a soil of finery and baubles, and is always ready to nag. How well such an opinion has sustained itself, is shown by the Ottomanic Codex 355, according to which the testimony of two women is worth as much as the testimony of one man. But even so, the Koran has a higher opinion of women than the early church fathers. The problem, ``An mulier habeas animam," was often debated at the councils. One of them, that of Macon, dealt earnestly with the MS. of Acidalius, ``Mulieres homines non esse." At another, women were forbidden to touch the Eucharist with bare hands. This attitude is implied by the content of countless numbers of evil proverbs which deal with the inferior character of woman, and certainly by the circumstance that so great a number of women were held to be witches, of whom about 100,000 were burned in Germany alone. The statutes dealt with women only in so far as their trustworthiness as witnesses could be depreciated. The Bambergensis (Art. 76), for example, permits the admission of young persons and women only in special cases, and the quarrels of the older lawyers concerning the value of feminine testimony is shown by Mittermaier.[1]

[1] Die Lehre vom Beweise. Darmstadt.

If we discount Tacitus' testimony concerning the high status of women among the Germanic tribes on the basis that he aimed at shaming and reforming his countrymen, we have a long series of assertions, beginning with that of the Norseman Havam<a'>l,−−which progressively speaks of women in depreciatory fashion, and calls them inconstant, deceitful, and stupefying,−−to the very modern maxim which brings together the extreme elevation and extreme degradation of woman: ``Give the woman wings and she is either an angel or a beast." Terse as this expression is, it ought to imply the proper point of view−−women are either superior or inferior to us, and may be both at the same time. There are women who are superior and there are women who are inferior, and further, a single <p 304> woman may be superior to us in some qualities and inferior in others, but she is not like us in any. The statement that woman is as complete in her own right as man is in his, agrees with the attitude above− mentioned if we correlate the superiority and inferiority of women with ``purposefulness." We judge a higher or lower organism from our standpoint of power to know, feel, and do, but we judge without considering whether these organisms imply or not the purposes we assume for them. Thus a uniform, monotonous task which is easy but requires uninterrupted attention can be better performed by an average, patient, unthinking individual, than by a genial fiery intellect. The former is much more to the purpose of this work than the latter, but he does not stand higher. The case is so with woman. For many of the purposes assigned to her, she is better constructed. But whether this construction, from our standpoint of knowing and feeling, is to be regarded as higher or lower is another question.

Hence, we are only in a sense correct, when calling some feminine trait which does not coincide with our own a poorer, inferior quality. We are likely to overlook the fact that this quality taken in itself, is the right one for the nature and the tasks of woman, whereas we ought with the modern naturalist assume that every animal has developed correctly for its own purposes. If this were not the case with woman she would be the first exception to the laws of natural evolution. Hence, our task is not to seek out peculiarities and rarities in woman, but to study her status and function as given her by nature. Then we shall see that what we would otherwise have called extraordinary appears as natural necessity. Of course many of the feminine qualities will not bring us back to the position which has required them. Then we may or may not be able to infer it according to the laws of general co−existence, but whether we establish anything directly or indirectly must be for the time, indifferent; we do know the fact before us. If we find only the pelvis of a human skeleton we should be able to infer from its broad form that it belonged to a woman and should be able to ground this inference on the business of reproduction which is woman's. But we shall also be able, although we have only the pelvis before us, to make reliable statements concerning the position of the bones of the lower extremities of _*this_ individual. And we shall be able to say just what the form of the thorax and the curve of the vertebral column were. This, also, we shall have in our power, more or less, to ground on the child−bearing function of woman. But we might go still further <p 305> and say that this individual, who, according to its pelvic cavity, was a woman, must have had a comparatively smaller skull, and although we can not correlate

the present mark with the child− bearing function or any other special characteristic of woman, we may yet infer it safely, because we know that this smaller skull capacity stands in regular relation to the broad pelvis, etc. In a like manner it will be possible to bring together collectively various psychical differences of woman, to define a number of them as directly necessary, and to deduce another number from their regular co−existence. The certainty here will be the same as in the former case, and once it is attained we shall be able satisfactorily to interpret the conduct, etc., of woman.

Before turning to feminine psychology I should like briefly to touch upon the use of the literature in our question and indicate that the poets' results are not good for us so long as we are trying to satisfy our particular legal needs. We might, of course, refer to the poet for information concerning the feminine heart,−−woman's most important property,−−but the historically famous knowers of the woman's heart leave us in the lurch and even lead us into decided errors. We are not here concerned with the history of literature, nor with the solution of the ``dear riddle of woman;'' we are dry−soured lawyers who seek to avoid mistakes at the expense of the honor and liberty of others, and if we do not want to believe the poets it is only because of many costly mistakes. Once we were all young and had ideals. What the poets told us we supposed to be the wisdom of life−−nobody else ever offers any−−and we wanted compulsorily to solve the most urgent of human problems with our poetical views. Illusions, mistakes, and guiltless remorse, were the consequence of this topsy−turvy work.

Of course I do not mean to drag our poets to court and accuse them of seducing our youth with false gods−−I am convinced that if the poets were asked they would tell us that their poetry was intended for all save for physicians and criminalists. But it is conceivable that they have introduced points of view that do not imply real life. Poetical forms do not grow up naturally, and then suddenly come. together in a self−originated idea. The poet creates the idea first, and in order that this may be so the individual form must evolve according to sense. The more natural and inevitable this process becomes the better the poem, but it does not follow that since we do not doubt it because it seems so natural, it mirrors the process of life. Not one of us criminalists has ever seen a form <p 306> as described in a poem−−least of all a woman. Obviously, in our serious and dry work, we may be able to interpret many an observation and assertion of the poet as a golden truth, but only when we have tested its correctness for the daily life. But it must be understood that I am not saying here, that we ourselves might have been able to make the observation, or to abstract a truth from the flux of appearances, or at least to set it in beautiful, terse, and I might say convincing, form. I merely assert, that we must be permitted to examine whether what has been beautifully said may be generalized, and whether we then have found the same, or a similar thing, in the daily life. Paradoxical as it sounds, we must never forget that there is a kind of evidentiality in the form of beauty itself. One of Blopstock's remarkable psalms begins: ``Moons wander round the earth, earths round suns, the whole host of suns wander round a greater sun, Our Father, that art thou.'' In this inexpressibly lofty verse there is essentially, and only in an extremely intensified fashion, evidence of the existence of God, and if the convinced atheist should read this verse he would, at least for the moment, believe in his existence. At the same time, a real development of evidence is neither presented nor intended. There are magnificent images, unassailable true propositions: the moon goes round about the earth, the earth about the sun, the whole system around a central sun−−and now without anything else, the fourth proposition concerning the identity of the central sun with our heavenly Father is added as true. And the reader is captivated for at least a minute! What I have tried here to show by means of a drastic example occurs many times in poems, and is especially evident where woman is the subject, so that we may unite in believing that the poet can not teach us that subject, that he may only lead us into errors.

To learn about the nature of woman and its difference from that of man we must drop everything poetical. Most conscientiously we must drop all cynicism and seek to find illumination only in serious disciplines. These disciplines may be universal history and the history of culture, but certainly not memoirs, which always represent subjective experience and one−sided views. Anatomy, physiology, anthropology, and serious special literature, presupposed, may give us an unprejudiced outlook, and then with much effort we may observe, compare, and renew our tests of what has been established, sine ire et studio, sine odio et gratia. <p 307>

I subjoin a list of sources and of especial literature which also contains additional references.[1]

[1] E. Reich: Das Leben des Menschens als Individuum. Berlin 1881.

L. von Stern: Die Frau auf dem Gebiete etc. Stuttgart 1876.

A. Corre: La M<e!>re et l'Enfant dans les Races Humaines. Paris 1882.

A. v. Schweiger−Lerchenfeld: Das Frauenleben auf der Erde. Vienna 1881

J. Michelet. La Femme.

Ryk<e!>re: Das weibliches Verbrechertum. Brussels 1898.

C. Renooz: Psychologie Compar<e'>e de l'Homme et de la Femme. Biblio. de. la Nouv. Encyclopaedie. Paris 1898.

M<o:>bius: Der Physiologische Schwachsinn des Weibes.

Section 64. 2. *Difference between Man and Women* There are many attempts to determine the difference between the feminine and masculine psyche. Volkmar in his ``Textbook of Psychology'' has attempted to review these experiments. But the individual instances show how impossible is clear and definite statement concerning the matter. Much is too broad, much too narrow; much is unintelligible, much at least remotely correct only if one knows the outlook of the discoverer in question, and is inclined to agree with him. Consider the following series of contrasts.

Male Female Individuality Receptivity (Burdach, Berthold) Activity Passivity (Daub, Ulrici, Hagemann) Leadership Imitativeness (Schleiermacher) Vigor Sensitivity to stimulation (Beneke) Conscious activity Unconscious activity (Hartmann) Conscious deduction Unconscious induction (Wundt) Will Consciousness (Fischer) Independence Completeness (Krause, Lindemann) Particularity Generally generic (Volkmann) Negation Affirmation (Hegel and his school)

None of these contrasts are satisfactory, many are unintelligible. Burdach's is correct only within limits and Hartmann's is approximately true if you accept his point of view. I do not believe that these explanations would help anybody or make it easier for him to understand woman. Indeed, to many a man they will appear to be saying merely that the psyche of the male is masculine, that of the female feminine. The thing is not to be done with epigrams however spirited. Epigrams merely tend to increase the already great confusion.

Hardly more help toward understanding the subject is to be derived from certain expressions which deal with a determinate <p 308> and also with a determining trait of woman. For example, the saying, ``On forbidden ground woman is cautious and man keen,'' may, under some circumstances, be of great importance in a criminal case, particularly when it is necessary to fix the sex of the criminal. If the crime was cautiously committed a woman may be inferred, and if swiftly, a man. But that maxim is deficient in two respects. Man and woman deal in the way described, not only in forbidden fields, but generally. Again, such characteristics may be said to be ordinary but in no wise regulative: there are enough cases in which the woman was much keener than the man and the man much more cautious than the woman.

The greatest danger of false conceptions lies in the attribution of an unproved peculiarity to woman, by means of some beautifully expressed, and hence, apparently true, proverb. Consider the well known maxim: Man forgives a beautiful woman everything, woman nothing. Taken in itself the thing is true; we find it in the gossip of the ball−room, and in the most dreadful of criminal cases. Men are inclined to reduce the conduct of a beautiful sinner to the mildest and least offensive terms, while her own sex judge her the more harshly in the

degree of her beauty and the number of its partisans. Now it might be easy in an attempt to draw the following consequences from the correctness of this proposition: Men are generally inclined to forgive in kindness, women are the unforgiving creatures. This inference would be altogether unjustified, for the maxim only incidentally has woman for its subject; it might as well read: Woman forgives a handsome man everything, man nothing. What we have at work here is the not particularly remarkable fact that envy plays a great r<o^>le in life.

Another difficulty in making use of popular truths in our own observations, lies in their being expressed in more or less definite images. If you say, for example, ``Man begs with words, woman with glances," you have a proposition that might be of use in many criminal cases, inasmuch as things frequently depend on the demonstration that there was or was not an amour between two people (murder of a husband, relation of the widow with a suspect).

Now, of course, the judge could not see how they conversed together, how he spoke stormily and she turned her eyes away. But suppose that the judge has gotten hold of some letters−−then if he makes use of the maxim, he will observe that the man becomes more explicit than the woman, who, up to a certain limit, remains ashamed. So if the man speaks very definitely in his letters, there <p 309> is no evidence contradictory to the inference of their relationship, even though nothing similar is to be found in her letters. The thing may be expressed in another maxim: What he wants is in the lines; what she wants between the lines.

The great difficulty of distinguishing between man and woman is mentioned in ``Levana oder Erziehungslehre," by Jean Paul, who says, ``A woman can not love her child and the four continents of the world at the same time. A man can." But who has ever seen a man love four continents? ``He loves the concept, she the appearance, the particular." What lawyer understands this? And this? ``So long as woman loves, she loves continuously, but man has lucid intervals." This fact has been otherwise expressed by Grabbe, who says: ``For man the world is his heart, for woman her heart is the world." And what are we to learn from this? That the love of woman is greater and fills her life more? Certainly not. We only see that man has more to do than woman, and this prevents him from depending on his impressions, so that he can not allow himself to be completely captured by even his intense inclinations. Hence the old proverb: Every new affection makes man more foolish and woman wiser, meaning that man is held back from his work and effectiveness by every inclination, while woman, each time, gathers new experiences in life. Of course, man also gets a few of these, but he has other and more valuable opportunities of getting them, while woman, who has not his position in the midst of life, must gather her experiences where she may.

Hence, it remains best to stick to simple, sober discoveries which may be described without literary glamour, and which admit of no exception. Such is the statement by Friedreich[1]: ``Woman is more excitable, more volatile and movable spiritually, than man; the mind dominates the latter, the emotions the former. Man thinks more, woman senses more." These ungarnished, clear words, which offer nothing new, still contain as much as may be said and explained. We may perhaps supplement them with an expression of Heusinger's, ``Women have much reproductive but little productive imaginative power. Hence, there are good landscape and portrait painters among women, but as long as women have painted there has not been any great woman−painter of history. They make poems, romances, and sonnets, but not one of them has written a good tragedy." This expression shows that the imaginative power of woman is really more reproductive than productive, <p 310> and it may be so observed in crimes and in the testimony of witnesses.

[1] J. B. Friedreich: System der gerichtlich. Psychol. Regensburg 1852.

In crimes, this fact will not be easy to observe in the deed itself, or in the manner of its execution; it will be observable in the nature of the plan used. To say that the plan indicates productive creation would not be to call it original. Originality can not be indicated, without danger of misunderstanding, by means of even a single example; we have simply to cling to the paradigm of Heusinger, and to say, that when the plan of a

criminal act appears more independent and more completely worked out, it may be assumed to be of masculine origin; if it seeks support, however, if it is an imitation of what has already happened, if it aims to find outside assistance during its execution, its originator was a woman. This truth goes so far that in the latter case the woman must be fixed upon as the intellectual source of the plan, even though the criminal actually was a man. The converse inference could hardly be held with justice. If a man has thought out a plan which a woman is to execute, its fundamental lines are wiped out and the woman permits the productive aspect of the matter to disappear, or to become so indefinite that any sure conclusion on the subject is impossible.

Our phenomenon is equally important in statements by witnesses. In many a case in which we suppose the whole or a portion of a witness's testimony to be incorrect, intentionally invented, or involuntarily imagined, we may succeed in extracting a part of the testimony as independent construction, and thus determining what might be incorrect in it. If, when this happens, the witness is a man and his lies show themselves in productive form, and if the witness is a woman and her lies appear to be reproduced, it is possible, at least, that we are being told untruths. The procedure obviously does not in itself contain anything evidential, but it may at least excite suspicion and thus caution, and that, in many cases, is enough. I may say of my own work that I have often gained much advantage from this method. If there were any suspicion that the testimony of a witness, especially the conception of some committed crime, was untrue, I recalled Heusinger, and asked myself ``If the thing is untrue, is it a sonnet or a tragedy?" If the answer was ``tragedy" and the witness a man, or, if the answer was ``sonnet" and the witness a woman, I concluded that everything was possibly invented, and grew quite cautious. If I could come to no conclusion, I was considerably helped by Heusinger's other proposition, asking myself, ``Flower−pictures or historical subjects?" <p 311> And here again I found something to go by, and the need to be suspicious. I repeat, no evidence is to be attained in this way, but we frequently win when we are warned beforehand.

(3) *Sexual Peculiarities.*

Section 65. (a) General Considerations.

Even if we know that hunger and love are not the only things that sustain impulse, we also know the profound influence that love and all that depends upon it exercise from time immemorial on the course of events. This being generally true, the question of the influence of sex on woman is more important than that of its influence on man, for a large number of profound conditions are at work in the former which are absent in the latter. Hence, it is in no way sufficient to consider only the physiological traits of the somatic life of woman, i. e., menstruation, pregnancy, child−birth, the suckling period, and finally the climacterium. We must study also the possibly still more important psychical conditions which spring from the feminine nature and are developed by the demands of civilization and custom. We must ask what it means to character when an individual is required from the moment puberty begins, to conceal something for a few days every month; what it means when this secrecy is maintained for a long time during pregnancy, at least toward children and the younger people. Nor can it be denied that the custom which demands more self−control in women must exercise a formative influence on their natures. Our views do not permit the woman to show without great indirection whom she hates or whom she likes; nor may she indicate clearly whom she loves, nor must she appear solicitous. Everything must happen indirectly, secretly, and approximately, and if this need is inherited for centuries, it must, as a characteristic, impart a definite expression to the sex. This expression is of great importance to the criminalist; it is often enough to recall these circumstances in order to find explanation for a whole series of phenomena. What differences the modern point of view and modern tendencies will make remains to be seen. Let us now consider particular characteristics.

Section 66. (b) Menstruation.

We men, in our own life, have no analogy, not even a remote one, to this essentially feminine process. In the mental life of woman it is of greater importance than we are accustomed to suppose. In <p 312> most cases in which it may be felt that the fact of menstruation influences a crime or a statement of facts, it will be

necessary to make use of the court physician, who must report to the judge. The latter absolutely must understand the fact and influence of menstruation. Of course he must also have general knowledge of the whole matter, but he must require the court physician definitely to tell him when the event began and whether any diseased conditions were apparent. Then it is the business of the judge to interpret the physician's report psychologically−−and the judge knows neither more nor less psychology, according to his training, than the physician. Any text−book on physiology will give the important facts about menstruation. It is important for us to know that menses begin, in our climate, from the thirteenth to the fifteenth year, and end between the forty−fifth and the fiftieth year. The periods are normally a solar month−−from twenty−seven to twenty−eight days, and the menstruation lasts from three to five days. After its conclusion the sexual impulse, even in otherwise frigid women, is in most cases intensified. It is important, moreover, to note the fact that most women, during their periods, show a not insignificant alteration of their mental lives, often exhibiting states of mind that are otherwise foreign to them.

As in many cases it is impossible without other justification to ask whether menses have begun, it is worth while knowing that most women menstruate, according to some authorities, during the first quarter of the moon, and that only a few menstruate during the new or full moon. The facts are very questionable, but we have no other cues for determining that menstruation is taking place. Either the popularly credited signs of it (e. g., a particular appearance, a significant shining of the eyes, bad odor from the mouth, or susceptibility to perspiration) are unreliable, or there are such signs as feeling unwell, tension in the back, fatigue in the bones, etc., which are much more simply and better discovered by direct interrogation, or examination by a physician.

If there is any suspicion that menstruation has influenced testimony or a crime, and if the other, especially the above−mentioned facts, are not against it, we are called upon to decide whether we are considering a mental event, due to the influence of menstruation. Icard[1] has written the best monograph on this subject.

[1] Icard: La Femme dans la Periode Menstruelle. Paris 1890.

Considering the matter in detail, our attention is first called to the importance of the beginning of menstruation. Never is a girl <p 313> more tender or quiet, never more spiritual and attractive, nor more inclined to good sense, than in the beginning of puberty, generally a little before the menstrual periods have begun, or have become properly ordered. At this time, then, the danger that the young girl may commit a crime is very small, perhaps smaller then at any other time. And hence, it is the more to be feared that such a creature may become the victim of the passions of a rou<e'>, or may cause herself the greatest harm by mistaken conduct. This is the more possible when the circumstances are such that the child has little to do, though naturally gifted. Unused spiritual qualities, ennui, waking sensitivity and charm, make a dangerous mixture, which is expressed as a form of interest in exciting experiences, in the romantic, or at least the unusual. Sexual things are perhaps wholly, or partly not understood, but their excitation is present and the results are the harmless dreams of extraordinary experiences. The danger is in these, for from them may arise fantasies, insufficiently justified principles, and inclination to deceit. Then all the prerequirements are present which give rise to those well−known cases of unjust complaints, false testimony about seduction, rape, attempts at rape and even arson, accusing letters, and slander.[1] Every one of us is sufficiently familiar with such accusations, every one of us knows how frequently we can not sufficiently marvel how such and such an otherwise quiet, honest, and peaceful girl could perform things so incomprehensible. If an investigation had been made to see whether the feat did not occur at the time of her first mensis; if the girl had been watched during her next mensis to determine whether some fresh significant alteration occurred, the police physician might possibly have been able to explain the event. I know many cases of crimes committed by half−grown girls who would under no circumstances have been accused of them; among them arson, lese majeste, the writing of numerous anonymous letters, and a slander by way of complaining of a completely fanciful seduction. In one of these cases we succeeded in showing that the girl in question had committed her crime at the time of her first mensis; that she was otherwise quiet and well conducted, and that she showed at her next mensis some degree of significant unrest and excitement. As soon as the menses got their proper adjustment

not one of the earlier phenomena could be observed, and the child exhibited no further inclination to commit crimes.[2]

[1] Cf. Nessel in H. Gross's Archiv. IV, 343

[2] Cf. Kraft−Ebing Psychosis Menstrualis. Stuttgart 1902.

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Creatures like her undergo similar danger when they have to make statements about perceptions which are either interesting in themselves, or have occurred in an interesting way. Here caution must be exercised in two directions. First: Discover whether the child in question was passing through her monthly period at the time when she saw the event under discussion, or when she was telling about it. In the former case, she has told of more than could have been perceived; in the second case she develops the delusion that she had seen more than she really had. How unreliable the testimony of youthful girls is, and what mistakes it has caused, are familiar facts, but too little attention is paid to the fact that this unreliability is not permanent with the individuals, and in most cases changes into complete trustworthiness. As a rule, the criminal judge is almost never in a position to determine the inconsistencies in the testimony of a menstruating girl, inasmuch as he sees her, at most, just a few times, and can not at those times observe differences in her love for truth. Fortunately the statements of newly menstruating girls, when untrue, are very characteristic, and present themselves in the form of something essentially romantic, extraordinary, and interesting. If we find this tendency of transforming simple daily events into extraordinary experiences, then, if the testimony of the girl does not agree with that of other witnesses, etc., we are warned. Still greater assurance is easy to gain, by examining persons who know the girl well on her trustworthiness and love of truth before this time. If their statements intensify the suspicion that menses have been an influence, it is not too much to ask directly, to re−examine, and, if necessary, to call in medical aid in order to ascertain the truth. The direct question is in a characteristically great number of cases answered falsely. If in such cases we learn that the observation was made or the testimony given at the menstrual period, we may assume it probably justifiable to suspect great exaggeration, if not pure invention.

The menstrual period tends, at all ages from the youngest child to the full−grown woman, to modify the quality of perception and the truth of description. Von Reichenbach[1a] writes that sensitivity is intensified during the menstrual period, and even if this famous discoverer has said a number of crazy things on the subject, his record is such that he must be regarded as a clever man and an excellent observer. There is no doubt that his sensitive people were simply very nervous individuals who reacted vigorously to all external <p 315> stimulations, and inasmuch as his views agree with others, we may assume that his observation shows at least how emotional, excitable, and inclined to fine perceptions menstruating women are. It is well− known how sharpened sense−perception becomes under certain conditions of ill−health. Before you get a cold in the head, the sense of smell is regularly intensified; certain headaches are accompanied with an intensification of hearing so that we are disturbed by sounds that otherwise we should not hear at all; every bruised place on the body is very sensitive to touch. All in all, we must believe that the senses of woman, especially her skin sensations, the sensations of touch, are intensified during the menstrual period, for at that time her body is in a ``state of alarm." This fact is important in many ways. It is not improbable that one menstruating woman shall have heard, seen, felt, and smelt, things which others, and she herself, would not have perceived at another time. Again, if we trace back many a conception of menstruating women we learn that the boundary between more delicate sensating and sensibility can not be easily drawn. Here we may see the universal transition from sensibility to acute excitability which is a source of many quarrels. The witness, the wounded, or accused are all, to a considerable degree, under its influence. It is a generally familiar fact that the incomparably larger number of complaints of attacks on women's honor, fall through. It would be interesting to know just how such complaints of menstruating women occur. Of course, nobody can determine this statistically, but it is a fact that such trials are best conducted, never exactly four weeks after the crime, nor four weeks after the accusation. For if most of the complaints of menstruating women are made at the period of their menses, they

are just as excited four weeks later, and opposed to every attempt at adjustment. This is the much−verified fundamental principle! I once succeeded by its use in helping a respectable, peace−loving citizen of a small town, whose wife made uninterrupted complaints of inuriam causa, and got the answer that his wife was an excellent soul, but, ``gets the devil in her during her monthlies, and tries to find occasions for quarrels with everybody and finds herself immediately much insulted."

[1a] Der sensitive Mensch.

A still more suspicious quality than the empty capacity for anger is pointed out by Lombroso,[1] who says that woman during menstruation is inclined to anger and to falsification. In this regard Lombroso may be correct, inasmuch as the lie may be combined <p 316> with the other qualities here observed. We often note that most honorable women lie in the most shameless fashion. If we find no other motive and we know that the woman periodically gets into an abnormal condition, we are at least justified in the presupposition that the two are coordinate, and that the periodic condition is cause of the otherwise rare feminine lie. Here also, we are required to be cautious, and if we hear significant and not otherwise confirmed assertions from women, we must bear in mind that they may be due to menstruation.

[1] C. Lombroso and G. Ferrero. The Female Offender.

But we may go still further. Du Saulle[1] asserts on the basis of far−reaching investigations, that a significant number of thefts in Parisian shops are committed frequently by the most elegant ladies during their menstrual period, and this in no fewer than 35 cases out of 36, while 10 more cases occurred at the beginning of the period.

[1] La Folie devant les Tribunaux Paris 1864. Trait<e'> de Medicine L<e'>gale. Paris 1873.

Other authorities[2] who have studied this matter have shown how the presentation of objects women much desire leads to theft. Grant that during her mensis the woman is in a more excitable and less actively resisting condition, and it may follow she might be easily overpowered by the seductive quality of pretty jewelry and other knickknacks. This possibility leads us, however, to remoter conclusions. Women desire more than merely pretty things, and are less able to resist their desires during their periods. If they are less able to resist in such things, they are equally less able to resist in other things. In handling those thefts which were formerly called kleptomaniac, and which, in spite of the refusal to use this term, are undeniable, it is customary, if they recur repeatedly, to see whether pregnancy is not the cause. It is well to consider also the influence of menstruation.

[2] Les Voleuses des Grands Magazins. Archives d'Anthropologie Criminelle XVI, 1, 341 (1901).

Menstruation may bring women even to the most terrible crimes. Various authors cite numerous examples in which otherwise sensible women have been driven to the most inconceivable things−−in many cases to murder. Certainly such crimes will be much more numerous if the abnormal tendency is unknown to the friends of the woman, who should watch her carefully during this short, dangerous period.

The fact is familiar that the disturbances of menstruation lead to abnormal psychoses. This type of mental disease develops <p 317> so quietly that in numerous cases the maladies are overlooked, and hence it is more easily possible, since they are transitive, to interpret them commonly as ``nervous excitement," or to pay no attention to them, although they need it.[1]

[1] A. Schwob: Les Psychoses Menstruelles au Point du Vue Medico−legal. Lyon, 1895.

Section 67. (c) Pregnancy.

We may speak of the conditions and effects of pregnancy very briefly. The doubt of pregnancy will be much less frequent than that of menstruation, for the powerful influence of pregnancy on the psychic life of woman is well−known, and it is hence the more important to call in the physician in cases of crimes committed by pregnant women, or in cases of important testimony to be given by such women. But, indeed, the frequently obvious remarkable desires, the significant conduct, and the extraordinary, often cruel, impulses, which influence pregnant women, and for the appearance of which the physician is to be called in, are not the only thing. The most difficult and most far−reaching conditions of pregnancy are the purely psychical ones which manifest themselves in the sometimes slight, sometimes more obvious alterations in the woman's point of view and capacity for producing an event. In themselves they seem of little importance, but they occasion such a change in the attitude of an individual toward a happening which she must describe to the judge, that the change may cause a change in the judgment. I repeat here also, that it may be theoretically said, ``The witness must tell us facts, and only facts," but this is not really so. Quite apart from the fact that the statement of any perception contains a judgment, it depends also and always on the point of view, and this varies with the emotional state. If, then, we have never experienced any of the emotional alteration to which a pregnant woman is subject, we must be able to interpret it logically in order to hit on the correct thing. We set aside the altered somatic conditions of the mother, the disturbance of the conditions of nutrition and circulation; we need clearly to understand what it means to have assumed care about a developing creature, to know that a future life is growing up fortunately or unfortunately, and is capable of bringing joy or sorrow, weal or woe to its parents. The woman knows that her condition is an endangerment of her own life, that <p 318> it brings at least pains, sufferings, and difficulties (as a rule, overestimated by the pregnant woman). Involuntarily she feels, whether she be educated or uneducated, the secrecy, the elusiveness of the growing life she bears, the life which is to come out into the world, and to bring its mother's into jeopardy thereby. She feels nearer death, and the various tendencies which are attached to this feeling are determined by the nature and the conditions of each particular future mother's sensations. How different may be the feeling of a poor abandoned bride who is expecting a child, from that of a young woman who knows that she is to bring into the world the eagerly−desired heir of name and fortune. Consider the difference between the feeling of a sickly proletarian, richly blessed with children, who knows that the new child is an unwelcome superfluity whose birth may perhaps rob the other helpless children of their mother, with the feeling of a comfortable, thoroughly healthy woman, who finds no difference between having three or having four children.

And if these feelings are various, must they not be so intense and so far−reaching as to influence the attitude of the woman toward some event she has observed? It may be objected that the subjective attitude of a witness will never influence a judge, who can easily discover the objective truth in the one−sided observation of an event. But let us not deceive ourselves, let us take things as they are. Subjective attitude may become objective falsehood in spite of the best endeavor of the witness, and the examiner may fail altogether to distinguish between what is truth and what poetry. Further, in many instances the witness must be questioned with regard to the impression the event made on her. Particularly, if the event can not be described in words.

We must ask whether the witness's impression was that an attack was dangerous, a threat serious, a blackmail conceivable, a brawl intentional, a gesture insulting, an assault premeditated. In these, and thousands of other cases, we must know the point of view, and are compelled to draw our deductions from it. And finally, who of us believes himself to be altogether immune to emotional induction? The witness describes us the event in definite tones which are echoed to us. If there are other witnesses the incomplete view may be corrected, but if there is only one witness, or one whom for some reason we believe more than others, or if there are several, but equally− trusted witnesses, the condition, view−point, and ``fact," remain inadequate in us. Whoever has before him a pregnant woman with <p 319> her impressions altered in a thousand ways, may therefore well be ``up in the air!"[1]

[1] Neumann: Einfluss der Sehwangerschaft. Siebold's Journal f. Geburtshilfe. Vol. II. Hoffbauer: Die Gel<u:>ste der Schwangeren. Archiv f. Kriminalrecht. Vol. I. 1817.

The older literature which develops an elaborate casuistic concerning cases in which pregnant women

exhibited especial desires, or abnormal changes in their perceptions and expressions, is in many directions of considerable importance. We must, however, remember that the old observations are rarely exact and were always made with less knowledge than we nowadays possess.

Section 68. (d) Erotic.

A question which is as frequent as it is idle, concerns the degree of sexual impulse in woman. It is important for the lawyer to know something about this, of course, for many a sexual crime may be more properly judged if it is known how far the woman encouraged the man; and in similar cases the knowledge might help us to presume what attitude feminine witnesses might take toward the matter. First of all, the needs of individual women are as different as those of individual men, and as varied as the need for food, drink, warmth, rest, and a hundred other animal requirements. We shall be unable to find any standard by determining even an average. It is useless to say that sexual sensibility is less in woman than in man; because specialists contradict each other on this matter. We are not aided either by Sergi's[2] assertion, that the sensibility is less than the irritability in woman, or by Mantegazza's statement, that women rarely have such powerful sexual desire that it causes them pain. We can learn here, also, only by means of the interpretation of good particular observations. When, for example, the Italian positivists repeatedly assert that woman is less erotic and more sexual, they mean that man cares more about the satisfaction of the sexual impulse, woman about the maternal instinct. This piece of information may help us to explain some cases; at least we shall understand many a girl's mistake without needing immediately to presuppose rape, seduction by means of promises of marriage, etc. Once we have in mind soberly what fruits dishonor brings to a girl,−−scorn and shame, the difficulties of pregnancy, alienation from relatives, perhaps even banish− <p 320> ment from the paternal home, perhaps the loss of a good position, then the pains and sorrows of child−birth, care of the child, reduction of earnings, difficulties and troubles with the child, difficulties in going about, less prospect of care through wedlock,−− these are of such extraordinary weight, that it is impossible to adduce so elementary a force to the sexual impulse as to enable it to veil the outlook upon this outcome of its satisfaction.

[2] Archivio di Psichiatria. 1892. Vol. XIII.

The well−known Viennese gynaecologist, Braun, said, ``If it were naturally so arranged that in every wedlock man must bear the second child, there would be no more than three children in any family." His intention is, that even if the woman agrees to have the third child, the man would be so frightened at the pains of the first child−birth that he never again would permit himself to bear another. As we can hardly say that we have any reason for asserting that the sexual needs of woman are essentially greater, or that woman is better able to bear more pain than man, we are compelled to believe that there must be in woman an impulse lacking in man. This impulse must be supposed to be so powerful that it subdues, let us say briefly, all the fear of an illegitimate or otherwise undesirable child−birth, and this is the impulse we mean by sexuality, by the maternal instinct.

It would seem as if nature, at least in isolated cases, desires to confirm this view. According to Icard there are women who have children simply for the pleasure of suckling them, the suckling being a pleasant sensation. If, now, nature has produced a sexual impulse purely for the sake of preserving the species, she has given fuller expression to sexuality and the maternal instinct when she has endowed it with an especial impulse in at least a few definite cases. This impulse will explain to the criminalist a large number of phenomena, especially the accommodation of woman to man's desires; and from this along he may deduce a number of otherwise difficultly explainable psychical phenomena.

There is, of course, a series of facts which deny the existence of this impulse−−but they only seem to. Child−murder, the very frequent cruelty of mothers to their children, the opposition of very young women to bearing and bringing up children (cf. the educated among French and American women), and similar phenomena seem to speak against the maternal instinct. We must not forget, however, that all impulses come to an end where the opposed impulse becomes stronger, and that under given circumstances even the most

powerful impulse, that of self−preservation, may be opposed. All actions of <p 321> despair, tearing the beard, beating hands and feet together, rage at one's own health, and finally suicide may ensue. If the mother kills her own child, this action belongs to the same series as self−damage through despair. The more orderly and numerous actions and feelings in this direction, e. g., the disinclination of women toward bearing children, may be explained also by the fact that it is the consequence of definite conditions of civilization. If we recall what unnatural, senseless, and half crazy habits with regard to nutrition, dressing, social adjustments, etc., civilization and fashion have forced upon us, we do not need to adduce real perversity in order to understand how desire for comfort, how laziness and the scramble for wealth lead to suppression of the maternal instinct. This may also be called degeneration. There are still other less important circumstances that seem to speak against the maternal instinct. These consist primarily in the fact that the sexual impulse endures to a time when the mother is no longer young enough to bear a child. We know that the first gray hair in no sense indicates the last lover, and according to Tait, a period of powerful sex−impulsion ensues directly after the climacterium. Now of what use, so far as child−birth is concerned, can such an impulse be?

But because natural instincts endure beyond their period of purposive efficiency, it does not follow that they are unconnected with that efficiency; we eat and drink also when the food is superfluous as nourishment. Wonderfully as nature has adjusted the instincts and functions to definite purposes, she still has at no point drawn fixed boundaries and actually destroyed her instrument where the need for it ceased. Just because nature is elsewhere parsimonious, she seems frequently extravagant; yet that extravagance is the cheapest means of attaining the necessary end. Thus, when woman's passion is no longer required for the function of motherhood, its impulsion may yet be counted on for the psychological explanation of more than one criminal event.

What is important, is to count the maternal instinct as a factor in criminal situations. If we have done so, we find explanations not only of sexual impropriety, but of the more subtle questions of the more or less pure relation between husband and wife. What attitude the woman takes toward her husband and children, what she demands of them, what she sacrifices for them, what makes it possible for her to endure an apparently unendurable situation; what, again, undermines directly and suddenly, in spite of seemingly small value, her courage in life;−−these are all conditions which <p 322> appear in countless processes as the distinguishing and explaining elements, and they are to be understood in the single term, ``maternal instinct." For a long time the inexplicability of love and sexual impulse were offered as excuses, but these otherwise mighty factors had to be assigned such remarkable and self−contradictory aspects that only one confusion was added to another and called explanation. Now suppose we try to explain them by means of the maternal instinct.

Section 69. (e) Submerged Sexual Factors.

The criminal psychologist finds difficulties where hidden impulses are at work without seeming to have any relation to their results. In such cases the starting−point for explanation is sought in the wrong direction. I say starting−point, because ``motive" must be conscious, and ``ground" might be misunderstood. We know of countless criminal cases which we face powerless because we do indeed know the criminal but are unable to explain the causal connection between him and the crime, or because, again, we do not know the criminal, and judge from the facts that we might have gotten a clew if we had understood the psychological development of the crime. If we seek for ``grounds," we may possibly think of so many of them as never to approach the right one; if we seek motives, we may be far misled because we are able only to bring the criminal into connection with his success, a matter which he must have had in mind from the beginning. It is ever easy for us when motive and crime are in open connection: greed, theft; revenge, arson; jealousy, murder; etc. In these cases the whole business of examination is an example in arithmetic, possibly difficult, but fundamental. When, however, from the deed to its last traceable grounds, even to the attitude of the criminal, a connected series may be discovered and yet no explanation is forthcoming, then the business of interpretation has reached its end; we begin to feel about in the dark. If we find nothing, the situation is comparatively good, but it is exceedingly bad in the numerous cases in which we believe ourselves to have sighted and pursued the proper solution.

Such a hidden source or starting−point of very numerous crimes is sex. That it often works invisibly is due to the sense of shame. Therefore it is more frequent in women. The hidden sexual starting− point plays its part in the little insignificant lie of an unimportant woman witness, as well as in the poisoning of a husband for the sake of a paramour still to be won. It sails everywhere under a <p 323> false flag; nobody permits the passion to show in itself; it must receive another name, even in the mind of the woman whom it dominates.

The first of the forms which the sexual impulse takes is false piety, religiosity. This is something ancient. Friedreich points to the connection between religious activity and the sexual organization, and cites many stories about saints, like that of the nun Blanbekin, of whom it was said, ``eam scire desiderasse cum lacrimis, et moerore maximo, ubinam esset praeputium Christi." The holy Veronica Juliani, in memory of the lamb of God, took a lamb to bed with her and nursed it at her breast. Similarly suggestive things are told of St. Catherine of Genoa, of St. Armela, of St. Elizabeth, of the Child Jesus, etc. Reinhard says correctly that sweet memories are frequently nothing more or less than outbursts of hidden passion and attacks of sensual love. Seume is mistaken in his assertion that mysticism lies mainly in weakness of the nerves and colic−−it lies a span deeper.

The use of this fact is simple. We must discover whether a woman is morally pure or sensual, etc. This is important, not only in violations of morality, but in every violation of law. The answers we receive to questions on this matter are almost without exception worthless or untrue, because the object of the question is not open to view, is difficult to observe, and is kept hidden from even the nearest. Our purpose is, therefore, best attained by directing the question to religious activity, religiosity, and similar traits. These are not only easy to perceive, but are openly exhibited because of their nature. Whoever assumes piety, does so for the sake of other people, therefore does not hide it. If religious extravagance can be reliably confirmed by witnesses, it will rarely be a mistake to assume inclination to more or less stifled sexual pleasure.

Examples of the relationship are known to every one of us, but I want to cite two out of my own experience as types. In one of them the question turned on the fact that a somewhat old, unmarried woman had appropriated certain rather large trust sums and had presented them to her servant. At first every suspicion of the influence of sex was set aside. Only the discovery of the fact that in her ostentatious piety she had set up an altar in her house, and compelled her servant to pray at it in her company, called attention to the deep interest of this very moral maiden in her servant.

The second case dealt with the poisoning of an old, impotent <p 324> husband by his young wife. The latter was not suspected by anybody, but at her examination drew suspicion to herself by her unctuous, pious appearance. She was permitted to express herself at length on religious themes and showed so very great a love of saints and religious secrets that it was impossible to doubt that a glowing sensuality must be concealed underneath this religious ash. Adultery could not be proved, she must have for one reason or another avoided it, and that her impotent husband was unsatisfactory was now indubitable. The supposition that she wanted to get rid of him in order to marry somebody else was now inevitable; and as this somebody else was looked for and discovered, the adduction of evidence of her guilt was no longer difficult.

How captious it is to prove direct passion and to attach reasonable suspicion thereto, and how necessary it is, first of all, to establish what the concealing material is, is shown in a remark of Kraus,[1] who asserts that the wife never affects to be passionate with her husband; her desire is to seduce him and she could not desire that if she were not passionate. This assertion is only correct in general. It is not, however, true that woman has no reason for affectation, for there are enough cases in which some woman, rendered with child by a poor man, desires to seduce a man of wealth in order to get a wealthy father for her child. In such and similar cases, the woman could make use of every trick of seduction without needing to be in the least passionately disposed.

[1] A. Kraus: Die Psychologie des Verbrechens. T<u:>bingen 1884.

Another important form of submerged sexuality is ennui. Nobody can say what ennui is, and everybody

knows it most accurately. Nobody would say that it is burdensome, and yet everybody knows, again, that a large group of evil deeds spring from ennui. It is not the same as idleness; I may be idle without being bored, and I may be bored although I am busy. At best, boredom may be called an attitude which the mind is thrown into because of an unsatisfied desire for different things. We speak of a tedious region, a tedious lecture, and tedious company only by way of metonymy−−we always mean the emotional state they put us into. The internal condition is determinative, for things that are boresome to one may be very interesting to another. A collection, a library, a lecture, are all tedious and boresome by transposition of the emotional state to the objective content, and in this way the ides of boredom gets a wide scope. We, however, shall speak of boredom as an emotional state. We find it most frequently among girls, young women, and among <p 325> undeveloped or feminine men as a very significant phenomenon. So found, it is that particular dreamful, happy, or unhappy attitude expressed in desire for something absent, in quiet reproaches concerning the lack of the satisfaction of that desire, with the continually recurring wish for filling out an inner void. The basis of all this is mainly sex. It can not be proved as such mathematically, but experience shows that the emotional attitude occurs only in the presence of sexual energy, that it is lacking when the desires are satisfied, but that otherwise, even the richest and best substitution can offer no satisfaction. It is not daring, therefore, to infer the erotic starting−point. Again we see how the moralizing and training influence of rigidly−required work suppresses all superfluous states which themselves make express demands and might want complete satisfaction.

But everything has its limits, and frequently the gentle, still power of sweet ennui is stronger than the pressure and compulsion of work. When this power is present, it never results in good, rarely in anything indifferent, and frequently forbidden fruit ripens slowly in its shadow. Nobody will assert that ennui is the cause of illicit relations, of seduction, of adultery and all the many sins that depend on it−−from petty misappropriations for the sake of the beloved, to the murder of the unloved husband. But ennui is for the criminal psychologist a sign that the woman was unsatisfied with what she had and wanted something else. From wishing to willing, from willing to asking, is not such a great distance. But if we ask the repentant sinner when she began to think of her criminal action we always learn that she suffered from incurable ennui, in which wicked thoughts came and still more wicked plans were hatched. Any experienced criminal psychologist will tell you, when you ask him, whether he has been much subject to mistakes in trying to explain women's crimes from the starting−point of their ennui. The neighborhood knows of the periods of this ennui, and the sinner thinks that they are almost discovered if she is asked about them. Cherchez la femme, cherchez l'amour; cherchez l'ennui; and hundreds of times you find the solution.

Conceit, too, may be caused by hidden sexuality. We need only to use the word denotatively, for when we speak of the conceit of a scholar, an official, or a soldier, we mean properly the desire for fame, the activity of getting oneself praised and recognized. Conceit proper is only womanish or a property of feminine men, and just as, according to Darwin, the coloration of birds, insects, and even <p 326> plants serves only the purposes of sexual selection and has, therefore, sexual grounds, so also the conceit of woman has only sexual purpose. She is conceited for men alone even though through the medium of other women. As Lotze wrote in his ``Mikrokosmus,'' ``Everything that calls attention to her person without doing her any harm is instinctively used by women as a means in sexual conflict.'' There is much truth in the terms ``means'' and ``sexual conflict.'' The man takes the battle up directly, and if we deal with this subject without frills we may not deny that animals behave just as men do. The males battle directly with each other for the sake of the females, who are compelled to study how to arouse this struggle for their person, and thus hit upon the use of conceit in sexual conflict. That women are conceited does not much matter to us criminal psychologists; we know it and do not need to be told. But the forms in which their conceit expresses itself are important; its consequences and its relation to other conditions are important.

To make use of feminine conceit in the court−room is not an art but an unpermissible trick which might lead too far. Whoever wants to succeed with women, as Madame de Rieux says, ``must bring their self−love into play.'' And St. Prosp<e!>re: ``Women are to be sought not through their senses−−their weakness is in their heart and conceit.'' These properties are, however, so powerful that they may easily lead to deception. If the

judge does not understand how to follow this prescription it does no good, but if he does understand it he has a weapon with which woman may be driven too far, and then wounded pride, anger, and even suggestion work in far too vigorous a manner. For example, a woman wants to defend her lover before the judge. Now, if the latter succeeds by the demonstration of natural true facts in wounding her conceit, in convincing her that she is betrayed, harmed, or forgotten by her protected lover, or if she is merely made to believe this, she goes, in most cases, farther than she can excuse, and accuses and harms him as much as possible; tries, if she is able, to destroy him−−whether rightly or wrongly she does not care. She has lost her lover and nobody else shall have him. ``Feminine conceit," says Lombroso, ``explains itself especially in the fact that the most important thing in the life of woman is the struggle for men." This assertion is strengthened by a long series of examples and historical considerations and can serve as a guiding thread in many labyrinthine cases. First of all, it is important to know in many trials whether a woman has already taken up this struggle for men, i. e., whether she has a lover, <p 327> or wishes to have a lover. If it can be shown that she has suddenly become conceited, or her conceit has been really intensified, the question has an unconditionally affirmative answer. Frequently enough one may succeed even in determining the particular man, by ascertaining with certainty the time at which this conceit first began, and whether it had closer or more distant reference to some man. If these conditions, once discovered, are otherwise at all confirmed, and there are no mistakes in observation, the inference is inevitably certain.

We learn much concerning feminine conceit when we ask how a man could have altered the inclination of a woman whose equal he in no sense was. It is not necessary in such cases to fuss about the insoluble riddle of the female heart and about the ever−dark secrets of the feminine soul. Vulpes vult fraudem, lupus agnum, femina laudem−−this illuminates every profundity. The man in question knew how to make use of laudem−−he knew how to excite feminine conceit, and so vanquished others who were worth much more than he.

This goes so far that by knowing the degree of feminine conceit we know also the vivacity of feminine sexuality, and the latter is criminologically important. Heinroth[1] says, ``The feminine individual, so long as it has demands to make, or believes itself to have them, has utmost self−confidence. Conceit is the sexual characteristic." And we may add, ``and the standard of sexuality." As soon as the child has the first ribbon woven into its hair, sexuality has been excited. It increases with the love of tinsel and glitter and dies when the aging female begins to neglect herself and to go about unwashed. Woman lies when she asserts that everything is dead in her heart, and sits before you neatly and decoratively dressed; she lies when she says that she still loves her husband, and at the same time shows considerable carelessness about her body and clothes; she lies when she assures you that she has always been the same and her conceit has come or gone. These statements constitute unexceptionable rules. The use of them involves no possible error.

[1] Lehrbuch des Anthropologie. Leipzig 1822.

We have now the opportunity to understand what feminine knowledge is worth and in what degree it is reliable. This is no place to discuss the capacity of the feminine brain, and to venture into the dangerous field which Schopenhauer and his disciples and modern anthropologists have entered merely to quarrel in. The judge's business is the concrete case in which he must test the ex− <p 328> pressions of a woman when they depend upon real or apparent knowledge, either just as he must test the testimony of any other witness, or by means of experts. We shall therefore indicate only the symptomatic value of feminine knowledge with regard to feminine conceit. According to Lotze, women go to theater and to church only to show their clothes and to appear artistic and pious; while M. d'Arconville says, that women learn only that it may be said of them, ``They are scholars," but for knowledge they care not at all.

This is important because we are likely, with regard to knowledge in the deepest sense of the word, to be frequently unjust to women. We are accustomed to suppose that the accumulation of some form of knowledge must have some definite, hence causally related, connection with purpose. We ask why the scholar is interested in his subject, why he has sought this knowledge? And in most cases we find the right reason when

we have found the logical connection and have sought it logically. This might have explained difficult cases, but not where the knowledge of women is concerned. Women are interested in art, literature, and science, mainly out of conceit, but they care also for hundreds of other little things in order, by the knowledge of them, to show off as scholars. Conceit and curiosity are closely related. Women therefore often attain information that might cause them to be listed as suspects if it could not be harmlessly explained by conceit. Conceit, however, has itself to be explained by the struggle for men, because woman knows instinctively that she can use knowledge in this struggle. And this struggle for the other sex frequently betrays woman's own crime, or the crime of others. Somebody said that Eve's first thought after eating the apple was: ``How does my fig−leaf fit?" It is a tasteful notion, that Eve, who needed only to please her Adam, thought only of this after all the sorrow of the first sin! But it is true, and we may imagine Eve's state of mind to be as follows: ``Shall I now please him more or less?" It is characteristic that the question about dress is said to have been the _*first_ question. It shows the power of conceit, the swiftness with which it presses to the front. Indeed, of all crimes against property half would have remained undiscovered if the criminals had been self−controlled enough to keep their unjustly acquired gains dark for a while. That they have not, constitutes the hope of every judge for the discovery of the criminal, and the hope is greater with the extent of the theft. It may be assumed that the criminal exhibits the fruits of his crime, but that it is difficult to discover when there is not much of it. This general <p 329> rule is much more efficacious among women than among men, for which reason a criminalist who suspects some person thinks rather of arresting this person's wife or mistress than himself. When the apprentice steals something from his master, his girl gets a new shawl, and that is not kept in the chest but immediately decorates the shoulders of the girl. Indeed, women of the profoundest culture can not wait a moment to decorate themselves with their new gauds, and we hear that gypsies, who have been caught in some fresh crime, are betrayed mainly by the fact that the women who had watched the house to be robbed had been trying on bits of clothing while the men were still inside cleaning the place up. What was most important for the women was to meet the men already decorated anew when the men would finally come back.

The old maid is, from the sexual standpoint, legally important because she is in herself rather different from other women, and hence must be differently understood. The properties assigned to these very pitiful creatures are well−known. Many of the almost exclusively unpleasant peculiarities assigned to them they may be said really to possess. The old maid has failed in her natural function and thus exhibits all that is implied in this accident; bitterness, envy, unpleasantness, hard judgment of others' qualities and deeds, difficulty in forming new relationships, exaggerated fear and prudery, the latter mainly as simulation of innocence. It is a well−known fact that every experienced judge may confirm that old maids (we mean here, always, childless, unmarried women of considerable age−− not maids in the anatomical sense) as witnesses, always bring something new. If you have heard ten mutually−corroborating statements and the eleventh is made by an old maid, it will be different. The latter, according to her nature, has observed differently, introduces a collection of doubts and suggestions, introduces nasty implications into harmless things, and if possible, connects her own self with the matter. This is as significant as explicable. The poor creature has not gotten much good out of life, has never had a male protector, was frequently enough defenseless against scorn and teasing, the amenities of social life and friendship were rarely her portion. It is, therefore, almost inevitable that she should see evil everywhere. If she has observed some quarrel from her window she will testify that the thing was provoked in order to disturb her; if a coachman has run over a child, she suggests that he had been driving at her in order to frighten her; the thief who broke into her neighbor's house really wanted to break into hers because she is <p 330> without protection and therefore open to all attacks, so that it is conceivable that he should want to hurt her. As a rule there will be other witnesses, or the old maid will be so energetic in her testimonies that her ``perceptions" will not do much damage, but it is always wise to be cautious.

Of course, there are exceptions, and it is well−known that exceptions occur by way of extreme contrast. If an old maid does not possess the unpleasant characteristics of her breed, she is extraordinarily kind and lovable, in such a way generally, that her all too mild and rather blind conceptions of an event make her a dangerous witness. It is also true that old maids frequently are better educated and more civilized than other women, as De Quincey shows. They are so because, without the care of husband and children, they have time for all

kinds of excellences, especially when they are inclined thereto. It is notable that the founders of women's charitable societies are generally old maids or childless widows, who have not had the joys and tasks of motherhood. We must take care, therefore, in judging the kindness of a woman, against being blinded by her philanthropic activity. That may be kindness, but as a rule it may have its source in the lack of occupation, and in striving for some form of motherhood. In judging old maids we deceive ourselves still more easily because, as Darwin keenly noted, they always have some masculine quality in their external appearance as well as in their activity and feeling. Now that kind of woman is generally strange to us. We start wrong when we judge her by customary standards and miss the point when, in the cases of such old maids, we presuppose only feminine qualities and overlook the very virile additions. We may add to these qualities the intrinsic productivity of old maids. Benneke, in his ``Pragmatische Psychologie," compares the activity of a very busy housewife with that of an unmarried virgin, and thinks the worth of the former to be higher, while the latter accomplishes more by way of ``erotic fancies, intrigues, inheritances, winnings in the lottery, and hypochondriac complaints." This is very instructive from the criminological point of view. For the criminalist can not be too cautious when he has an old maid to examine. Therefore, when a case occurs containing characteristic intrigues, fanciful inheritances, and winnings in the lottery, it will be well to seek out the old maid behind these things. She may considerably help the explanation.

Both professional and popular judgment agree that the largest majority of women have great fear of becoming old maids. We are <p 331> told how this fear expresses itself in foreign countries. In Spain e. g., it is said that a Spanish woman who has passed her first bloom takes the first available candidate for her hand in order to avoid old−maidenhood; and in Russia every mature girl who is able to do so, goes abroad for a couple of years in order to return as ``widow." Everybody knows the event, nobody asks for particulars about it. Some such process is universal, and many an unfortunate marriage and allied crime may be explained by it. Girls who at seventeen or eighteen were very particular and had a right to be, are modest at twenty, and at twenty−six marry at any price, in order not to remain old maids. That this is not love−marriage and is often contrary to intelligence, is clear, and when neither heart nor head rule, the devil laughs, and it is out of such marriages that adultery, the flight of the wife, cruelty, robbery from the spouse, and worse things, arise. Therefore it will be worth while to study the history of the marriage in question. Was it a marriage in the name of God, i. e., the marriage of an old maid? Then double caution must be used in the study of the case.

There is some advantage in knowing the popular conception of _*when_ a girl becomes an old maid, for old−maidenhood is a matter of a point of view; it depends on the opinion of other people. Belles− lettres deals considerably with this question, for it can itself determine the popular attitude to the unmarried state. So Brandes discovers that the heroines of classical novelists, of Racine, Shakespeare, Moliere, Voltaire, Ariosto, Byron, Lesage, Scott, are almost always sixteen years of age. In modern times, women in novels have their great love−adventure in the thirties. How this advance in years took place we need not bother to find out, but that it has occurred, we must keep in mind.

Before concluding the chapter on sexual conditions, we must say a word about hysteria, which so very frequently has deceived the judge. Hysteria was named by the ancients, as is known, from <gr h ustera>, the womb,−−and properly−−for most of the causes of evil are there hidden. The hysterics are legally significant in various ways. Their fixed ideas often cause elaborate unreasonable explanations; they want to attract attention, they are always concerned with themselves, are always wildly enthusiastic about somebody else; often they persecute others with unwarranted hatred and they are the source of the coarsest denunciations, particularly with regard to sexual crimes. Incidentally, most of them are smart and have a diseased acuity of the senses. Hearing and smell in <p 332> particular, are sometimes remarkably alert, although not always reliable, for hysterics frequently discover more than is there. On the other hand, they often are useful because of their delicate senses, and it is never necessary to show the correctness of their perception out of hand. Bianchi rightly calls attention to the fact, that hysterics like to write anonymous letters. Writers of these are generally women, and mainly hysterical women; if a man writes them, he is indubitably feminine in nature.

Most difficulties with hysterics occur when they suffer some damage,[1] for they not only add a number of

dishonest phenomena, but also actually feel them. I might recall by way of example Domrich's story, that hysterics regularly get cramps laughing, when their feet get cold. If this is true it is easy to conceive what else may happen.

[1] Cf. H. Gross's Archiv. VI, 334.

All this, clearly, is a matter for the court physician, who alone should be the proper authority when a hysteric is before the court. We lawyers have only to know what significant dangers hysterics threaten, and further, that the physician is to be called whenever one of them is before us. Unfortunately there are no specific symptoms of hysteria which the layman can make use of. We must be satisfied with the little that has just been mentioned. Hysteria, I had almost said _*fortunately_, is nowadays so widespread that everybody has some approximate knowledge of how it affects its victims.

(4) *Particular Feminine Qualities.*

Section 70. (a) Intelligence.

Feminine intelligence properly deserves a separate section. Intelligence is a function that has in both sexes some basis and purpose and proceeds according to the same rules, but the meaning of intelligence must be abandoned if we are to suppose it so rigid and so difficult to hold, that the age−long differences between man and woman could have had no influence on it. The fundamentally distinct bodies, the very different occupations of both sexes, their different destinies, must have had profound mutative influence on their intelligence. Moreover, we must always start with a difference of attitude in the two sexes, in which the purely positive belongs to one only, and we must see whether it is not intensified by the negative of the other. When one body presses on another the resulting impression is due, not only to the hardness of the first, but <p 333> also to the softness of the second, and when we hear about the extraordinary wit of a woman we must blame the considerable idiocy of the men she associates with. How many women are to be trusted for intelligence, is a question of great importance for the criminalist, inasmuch as right judgment depends on the attitude and good sense of the witnesses, and must determine the value of the material presented us.

We wish to make no detailed sub−divisions in what follows. We shall merely consider in their general aspects those functions which we are accustomed to find in our own work.

Section 71. I. Conception.

Concerning feminine sense−perception we have already spoken. There is no significant difference between the two sexes, although in conceptual power we find differences very distinct.

It may be generally said, as the daily life shows, that women conceive differently from men. Whatever a dozen men may agree on conceptually, will be differently thought of by any one woman. Now what is significant in this fact is, that generally the woman is correct, that she has a better conception,−−and still under the same circumstances we continue to conceive in the same way, even for the tenth time. This fact demonstrates that a different form of organization, i. e., an essential difference in nature, determines the character of conception in the two sexes. If we compare values, the result will be different according to sex, even with regard to the very material compared, or to the manner in which it has been discovered. In the apprehension of situations, the perception of attitudes, the judgment of people in certain relations, in all that is called tact, i. e., in all that involves some abstraction or clarification of confused and twisted material, and finally, in all that involves human volitions, women are superior, and more reliable individually, then ten men together. But the manner in which the woman obtains her conception is less valuable, being the manner of pure instinct. Or suppose that we call it more delicate feeling−−the name does not matter−−the process is mainly unconscious, and is hence of less value only, if I may say so, as requiring less thought. In consequence, there is not only not a decrease in the utility of feminine testimony; also its reliability is very

great. There may be hundreds of errors in the dialectical procedure of a man, while there is much more certainty in the instinctive conception and the direct reproduction of a woman. Hence, her statements are more reliable. <p 334>

We need not call the source of this instinct God's restitution for feminine deficiency in other matters; we can show that it is due to natural selection, and that the position and task of woman requires her to observe her environment very closely. This need sharpened the inner sense until it became unconscious conception. Feminine interest in the environment is what gives female intuition a swiftness and certainty unattainable in the meditations of the profoundest philosophers. The swiftness of the intuition, which excludes all reflection, and which merely solves problems, is the important thing. Woman perceives clearly, as Spencer says somewhere, the mental status of her personal environment; while Schopenhauer has incorrectly suggested that women differ from men intellectually because they are lazy and want short−cuts to attain their purpose. In point of fact, they do not want short−cuts−−they simply avoid complicated inference and depend upon intuition, as they very safely may. Vision is possible only where perception is possible, i. e., when things are near. The distant and the veiled can not be seen, but must be inferred; hence, women let inference alone and do what they can do better. This suggests the value of these different interpretations of the feminine mode of conception. As lawyers we may believe women where intuition is involved; where inference is a factor we must be very careful. Sensory conception is to be understood in the same way as intellectual conception. According to Mantegazza,[1] woman has a particularly good eye for the delicate aspects of things but has no capacity for seeing things on the horizon. A remote, big object does not much excite her interest. This is explained by the supposed fact that women as a rule can not see so far as men, and are unable to distinguish the distant object so well. This is no explanation because it would be as valid of all short−sighted people. The truth is, that the definition of distant objects requires more or less reason and inference. Woman does not reason and infer, and if things miss her intuition, they do not exist for her.

[1] Mantegazza: Fisiologia del piacere.

Objectivity is another property that women lack. They tend always to think in personalities, and they conceive objects in terms of personal sympathies. Tell a woman about a case so that her interest will be excited without your naming the individuals save as A and B, and it will be impossible to get her to take a stand or to make a judgment. Who are the people, what are they, how old are they, etc.? These questions must be answered first. Hence the divergent feminine conceptions of a case before and after the <p 335> names are discovered. The personalizing tendency results in some extraordinary things. Suppose a woman is describing a brawl between two persons, or two groups. If the sides were equally matched in strength and weapons, and if the witness in question did not know any of the fighters before, she will nevertheless redistribute sun and wind in her description if one of the brawlers happens accidentally to have interested her, or has behaved in a ``knightly'' fashion, though under other circumstances he might have earned only her dislike. In such cases the fairy tale about telling mere facts recurs, and I have to repeat that nobody tells mere facts−−that judgment and inference always enter into statements and that women use them more than men. Of course real facts and inferred ones can be distinguished,−−infrequently however, and never with certainty. It is best, therefore, to determine whether the witness bears any relation to one of the parties, and what it is. And this relation will be an element in most cases inasmuch as one rarely is present at a quarrel without some share in it. But even if the latter case should occur, it is necessary, first of all, to hear every detail so as to get the woman's attitude clearly in mind. The evidence of the woman's mode of conception is of more importance than the evidence concerning the fact itself. And finding the former is easy enough if the woman is for a short time allowed to speak generally. When her attitude is known, the standard for adjusting her excuses of one and accusations of another, is easily discovered.

The same is true in purely individual cases. In the eyes of woman the same crime committed by one man is black as hell; committed by another, it is in all respects excusable. All that is necessary for this attitude is the play of sympathies and antipathies generated from whatever source. Just as the woman reader of romances favors one hero and hates another, so the woman witness behaves toward her figures. And it may happen that

she finds one of them to have murdered with such ``exciting excellence," and the victim to have been ``such a boresome Philistine," that she excuses the crime. Caution is here the most necessary thing. Of course women are not alone in taking such attitudes, but they are never so clear, so typical, nor so determined as when taken by women.

Section 72. 2. Judgment.

Avenarius tells of an English couple who were speaking about angels' wings. It was the man's opinion that this angelic possession was doubtful, the woman's that it could not be. Many a woman <p 336> witness has reminded me of this story, and I have been able to explain by use of it many an event. Woman says, ``that must be" when she knows of no reason; ``that must be" when her own arguments bore her; ``that must be" when she is confused; when she does not understand the evidence of her opponent, and particularly when she desires something. Unfortunately, she hides this attitude under many words, and one often wishes for the simple assertion of the English woman, ``that must be." In consequence, when we want to learn their ratio sciendi from women, we get into difficulties. They offer us a collection of frequently astonishing and important things, but when we ask for the source of this collection we get ``that must be," in variations, from a shrug of the shoulders to a flood of words. The inexperienced judge may be deceived by the positiveness of such expressions and believe that such certainty must be based on something which the witness can not utter through lack of skill. If, now, the judge is going to help the ``unaided" witness with ``of course you mean because," or ``perhaps because," etc., the witness, if she is not a fool, will say ``yes." Thus we get apparently well−founded assertions which are really founded on nothing more than ``that must be."

Cases dealing with divisions, distinctions and analysis rarely contain ungrounded assertions by women. Women are well able to analyse and explain data, and what one is capable of and understands, one succeeds in justifying. Their difficulty is in synthetic work, in progressive movement, and there they simply assert. The few observations of this characteristic confirm this statement. For example, Lafitte says that at medical examinations women are unable to do anything which requires synthetic power. Women's judgments of men further confirm this position, for they are said to be more impressed with a minimal success, than with a most magnificent effort. Now there is no injustice, no superficiality in this observation; its object is simply parallel to their incapacity for synthesis. Inasmuch as they are able to follow particular things they will understand a single success, but the growth of efficiency toward the future requires composition and wide horizon, hence they can not understand it. Hence, also, the curious contradictions in women's statements as suspicion rises and falls. A woman, who to−day knows of a hundred reasons for the guilt of some much− compromised prisoner, tries to turn everything the other way when she later learns that the prisoner has succeeded in producing some apparent alibi. So again, if the prosecution seems to be successful, <p 337> the women witnesses for the defence often become the most dangerous for the defenders.

But here, also, women find a limit, perhaps because like all weaklings they are afraid to draw the ultimate conclusions. As Leroux says in ``De l'Humanit<e'>," ``If criminals were left to women they would kill them all in the first burst of anger, and if one waited until this burst had subsided they would release them all." The killing points to the easy excitability, the passionateness, and the instinctive sense of justice in women which demands immediate revenge for evil deeds. The liberation points to the fact that women are afraid of every energetic deduction of ultimate consequences, i. e., they have no knowledge of real justice. ``Men look for reasons, women judge by love; women can love and hate, but they can not be just without loving, nor can they ever learn to value justice." So says Schiller, and how frequently do we not hear the woman's question whether the accused's fate is going to depend on her evidence. If we say yes, there is as a rule a restriction of testimony, a titillation and twisting of consequences, and this circumstance must always be remembered. If you want to get truth from a woman you must know the proper time to begin, and what is more important, when to stop. As the old proverb says, and it is one to take to heart: ``Women are wise when they act unconsciously; fools when they reflect."

It is a familiar fact that women, committing crimes, go to extremes. It may be correct to adduce, as modern

writers do, the weakness of feminine intelligence to social conditions, and it may, perhaps, be for this reason that the future of woman lies in changing the feminine milieu. But also with regard to environment she is an extremist. The most pious woman, as Richelieu says, will not hesitate to kill a troublesome witness. The most complicated crimes are characteristically planned by women, and are frequently swelled with a number of absolutely purposeless criminal deeds.

In this circumstance we sometimes find the explanation for an otherwise unintelligible crime which, perhaps, indicates also, that the first crime was committed by woman. It is as if she has in turpitude a certain pleasure to which she abandons herself as soon as she has passed the limit in her first crime.

Section 73. 3. Quarrels with Women.

This little matter is intended only for very young and inexperienced criminal justices. There is nothing more exciting or instructive than <p 338> a quarrel with clever and trained women concerning worthy subjects; but this does not happen in court, and ninety per cent. of our woman witnesses are not to be quarrelled with. There are two occasions on which a quarrel may arise. The first, when we are trying to show a denying prisoner that her crime has already been proved and that her denials are silly, and the second, when we are trying to show a witness that she must know something although she refuses to know it, or when we want to show her the incorrectness of her conclusion, or when we want to lead her to a point where her testimony can have further value. Now a verbal quarrel will hurt the case. This is a matter of ancient experience, for whoever quarrels with women is, as B<o:>rne says, in the condition of a man who must unceasingly polish lights.[1]

[1] Several sentences are here omitted.

Women have an obstinacy, and it is no easy matter to be passive against it. But in the interest of justice, the part of the wise is not to lose any time by making an exhibition of himself through verbal quarrels with women witnesses. The judge may be thoroughly convinced that his success with the woman may help the case, but such success is very rare, and when he thinks he has it, it is only apparent and momentary, or is merely naive self−deception. For women do like, for the sake of a momentary advantage, to please men and to appear convinced, but the judge for whom a woman does this is in a state that requires consideration.

A few more particulars concerning feminine intelligence. They are, however, only indirectly connected with it, and are as unintelligible as the fact that left−handedness is more frequent and color− blindness less frequent among women than among men. If, however, we are to explain feminine intelligence at all we must do so by conceiving that women's intellectual functioning stops at a definite point and can not pass beyond it.

Consider their attitude toward money. However distasteful Mammon may be in himself, money is so important a factor in life itself that it is not unintelligibly spoken of as the ``majesty of cold cash.'' But to make incorrect use of an important thing is to be unintelligent. Whoever wastes money is not intelligent enough to understand what important pleasures he may provide for himself and whoever hoards it does not know its proper use. Now single women are either hoarders or wasters; they rarely take the middle way and assume the prudence of the housewife, which generally develops into miserliness. This is best observable in the foolish <p 339> bargaining of women at markets, in their supposing that they have done great things by having reduced the price of their purchase a few cents. Every dealer confirms the fact that the first price he quotes a woman is increased in order to give her a chance to bargain. But she does not bargain down to the proper price, she bargains down to a sum above the proper price, and she frequently buys unnecessary, or inferior things, simply because the dealer was smart enough to captivate her by allowing reductions. This is indicated in a certain criminal case,[1] in which the huckster−woman asserted that she immediately suspected a customer of passing counterfeit coins because she did not bargain.

[1] Chronique des Tribunaux, vol II. Bruxelles 1835.

Now this tendency to hoard is not essentially miserliness, for the chief purpose of miserliness is to bring together and to own money; to enjoy merely the look of it. This tendency is an unintelligent attitude toward money, a failure to judge its value and properties. Now this failure is one of the principal reasons for numerous crimes. A woman needing money for her thousand several objects, demands it from her husband, and the latter has to provide it without her asking whether he honestly can or not. A wife is said to be uncurious only with regard to the source of her husband's money. She knows his income, she knows the necessary annual expenses; she can immediately count up the fact that the two are equal−−but she calmly asks for more.

Of course, I am not referring to the courageous helpmeet who stands by her husband in bearing the burdens of life. With her the criminalist has nothing to do. I mean only those light−headed, pleasure−loving women, who nowadays make the great majority, and that army of ``lovers," who have cost the country a countless number of not unworthy men. The love of women is the key to many a crime, even murder, theft, swindling, and treachery. First, there is the woman's unintelligible arithmetic, then her ceaseless requirements, finally the man's surrender to the limit of his powers; then fresh demands, a long period of opposition, then surrender, and finally one unlawful action. From that it is only a step to a great crime. This is the simple theme of the countless variations that are played in the criminal court. There are proverbs enough to show how thoroughly the public understands this connection between love and money.[2]

[2] Cf. Lombroso and Ferrero, The Female Offender: Tr. by Morrison. N. Y. 1895.

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An apparently insignificant feminine quality which is connected with her intelligence is her notorious, ``never quite ready." The criminalist meets this when he is looking for an explanation of the failure of some probably extraordinarily intelligent plan of crime. Or when a crime occurs which might have been prevented by a step at the right minute, women are always ten minutes behind the time. But these minutes would not be gained if things were begun ten minutes earlier, and once a woman suffers real damage through tardiness, she resolves to be ten minutes ahead of time. But when she does so she fails in her resolution and this failure is to be explained by lack of intelligence. The little fact that women are never quite on time explains many a difficulty.

Feminine conservatism is as insignificant as feminine punctuality. Lombroso shows how attached women are to old things. Ideas, jewelry, verses, superstitions, and proverbs are better retained by women than by men. Nobody would venture to assert that a conservative man must be less intelligent than a liberal. Yet feminine conservatism indicates a certain stupidity, less excitability and smaller capacity for accepting new impressions. Women have a certain difficulty in assimilating and reconstructing things, and because of this difficulty they do not like to surrender an object after having received it. Hence, it is well not to be too free with the more honorable attributes such as piety, love, loyalty, respect to what they have already learned; closer investigation discovers altogether too many instances of intellectual rigidity.

In our profession we meet the fact frequently that men pass much more easily from honesty to dishonesty, and vice versa, that they more easily change their habits, begin new plans, etc. Generalizations, of course, can not be made; each case has to be studied on its merits. Yet, even when questions of fact arise, e. g., in searching houses, it is well to remember the distinction. Old letters, real corpora delicti, are much more likely to be found in the woman's box than in the man's. The latter has destroyed the thing long ago, but the former may ``out of piety" have preserved for years even the poison she once used to commit murder with.

Section 74. (b) Honesty.

We shall speak here only of the honesty of the sort of women the courts have most to do with, and in this regard there is little to give us joy. Not to be honest, and to lie, are two different things; the latter is positive,

the former negative, the dishonest person <p 341> does not tell the truth, the liar tells the untruth. It is dishonest to suppress a portion of the truth, to lead others into mistakes, to fail to justify appearances, and to make use of appearances. The dishonest person may not have said a single untrue word and still have introduced many more difficulties, confusions and deceptions than the liar. He is for this reason more dangerous than the latter. Also, because his conduct is more difficult to uncover and because he is more difficult to conquer than the liar. Dishonesty is, however, a specially feminine characteristic, and in men occurs only when they are effeminate. Real manliness and dishonesty are concepts which can not be united. Hence, the popular proverb says, ``Women always tell the truth, but not the whole truth." And this is more accurate than the accusation of many writers, that women lie. I do not believe that the criminal courts can verify the latter accusation. I do not mean that women never lie−−they lie enough−− but they do not lie more than men do, and none of us would attribute lying to women as a sexual trait. To do so, would be to confuse dishonesty with lying.

It would be a mistake to deal too sternly in court with the dishonesty of women, for we ourselves and social conditions are responsible for much of it. We dislike to use the right names of things and choose rather to suggest, to remain in embarrassed silence, or to blush. Hence, it is too much to ask that this round−aboutness should be set aside in the courtroom, where circumstances make straight talking even more difficult. According to Lombroso,[1] women lie because of their weaknesses, and because of menstruation and pregnancy, for which they have in conversation to substitute other illnesses; because of the feeling of shame, because of the sexual selection which compels them to conceal age, defects, diseases; because finally of their desire to be interesting, their suggestibility, and their small powers of judgment. All these things tend to make them lie, and then as mothers they have to deceive their children about many things. Indeed, they are themselves no more than children, Lombroso concludes. But it is a mistake to suppose that these conditions lead to lying, for women generally acquire silence, some other form of action, or the negative propagation of error. But this is essentially dishonesty. To assert that deception, lying, have become physiological properties of women is, therefore, wrong. According to Lotze, women hate analysis and hence can not distinguish between the true and the false, but then women hate analysis <p 342> only when it is applied to themselves. A woman does not want to be analyzed herself simply because analysis would reveal a great deal of dishonesty; she is therefore a stranger to thorough−going honest activity. But for this men are to blame. Nobody, as Flaubert says, tells women the truth. And when once they hear it they fight it as something extraordinary. They are not even honest with themselves. But this is not only true in general; it is true also in particular cases which the court room sees. We ourselves make honesty difficult to women before the court. Of course, I do not mean that to avoid this we are to be rude and shameless in our conversation with women, but it is certain that we compel them to be dishonest by our round−about handling of every ticklish subject. Any half−experienced criminal justice knows that much more progress can be made by simple and absolutely open discussion. A highly educated woman with whom I had a frank talk about such a matter, said at the end of this very painful sitting, ``Thank God, that you spoke frankly and without prudery−−I was very much afraid that by foolish questions you might compel me to prudish answers and hence, to complete dishonesty."

[1] Loco cit.

We have led women so far by our indirection that according to Stendthal, to be honest, is to them identical with appearing naked in public. Balzac asks, ``Have you ever observed a lie in the attitude and manner of woman? Deceit is as easy to them as falling snow in heaven." But this is true only if he means dishonesty. It is not true that it is easy for women really to lie. I do not know whether this fact can be proven, but I am sure the feminine malease in lying can be observed. The play of features, the eyes, the breast, the attitude, betrays almost always even the experienced female offender. Now, nothing can reveal the play of her essential dishonesty. If a man once confesses, he confesses with less constraint than a woman, and he is less likely, even if he is very bad, to take advantage of false favorable appearances, while woman accepts them with the semblance of innocence. If a man has not altogether given a complete version, his failure is easy to recognize by his hesitation, but the opinions of woman always have a definite goal, even though she should tell us only a tenth of what she might know and say.

Even her simplest affirmation or denial is not honest. Her ``no'' is not definite; e. g., her ``no'' to a man's demands. Still further, when a man affirms or denies and there is some limitation to his assertion. He either announces it expressly or the more trained ear <p 343> recognizes its presence in the failure to conclude, in a hesitation of the tone. But the woman says ``yes'' and ``no,'' even when only a small portion of one or the other asserts a truth behind which she can hide herself, and this is a matter to keep in mind in the courtroom.

Also the art of deception or concealment depends on dishonesty rather than on pure deceit, because it consists much more in the use of whatever is at hand, and in suppression of material, than on direct lies. So, when the proverb says that a woman was ill only three times during the course of the year, but each time for four months, it will be unjust to say that she intentionally denies a year− long illness. She does not, but as a matter of fact, she is ill at least thirteen times a year, and besides, her weak physique causes her to feel frequently unwell. So she does not lie about her illness. But then she does not immediately announce her recovery and permits people to nurse and protect her even when she has no need of it. Perhaps she does so because, in the course of the centuries, she found it necessary to magnify her little troubles in order to protect herself against brutal men, and had, therefore, to forge the weapon of dishonesty. So Schopenhauer agrees: ``Nature has given women only one means of protection and defence−−hypocrisy; this is congenital with them, and the use of it is as natural as the animal's use of its claws. Women feel they have a certain degree of justification for their hypocrisy.''

With this hypocrisy we have, as lawyers, to wage a constant battle. Quite apart from the various ills and diseases which women assume before the judge, everything else is pretended; innocence, love of children, spouses, and parents; pain at loss and despair at reproaches; a breaking heart at separation; and piety,−−in short, whatever may be useful. This subjects the examining justice to the dangers and difficulties of being either too harsh, or being fooled. He can save himself much trouble by remembering that in this simulation there is much dishonesty and few lies. The simulation is rarely thorough−going, it is an intensification of something actually there.

And now think of the tears which are wept before every man, and not least, before the criminal judge. Popular proverbs tend to undervalue, often to distrust tearful women. Mantegazza[1] points out that every man over thirty can recall scenes in which it was difficult to determine how much of a woman's tears meant real <p 344> pain, and how much was voluntarily shed. In the notion that tears represent a mixture of poetry and truth, we shall find the correct solution. It would be interesting to question female virtuosos in tears (when women see that they can really teach they are quite often honest) about the matter. The questioner would inevitably learn that it is impossible to weep at will and without reason. Only a child can do that. Tears require a definite reason and a certain amount of time which may be reduced by great practice to a minimum, but even that minimum requires some duration. Stories in novels and comic papers in which women weep bitterly about a denied new coat, are fairy tales; in point of fact the lady begins by feeling hurt because her husband refused to buy her the thing, then she thinks that he has recently refused to buy her a dress, and to take her to the theatre; that at the same time he looks unfriendly and walks away to the window; that indeed, she is really a pitiful, misunderstood, immeasurably unhappy woman, and after this crescendo, which often occurs presto prestissimo, the stream of tears breaks through. Some tiny reason, a little time, a little auto− suggestion, and a little imagination,−−these can keep every woman weeping eternally, and these tears can always leave us cold. Beware, however, of the silent tears of real pain, especially of hurt innocence. These must not be mistaken for the first. If they are, much harm may be done, for these tears, if they do not represent penitence for guilt, are real evidences of innocence. I once believed that the surest mark of such tears was the deceiving attempt to beat down and suppress them; an attempt which is made with elementary vigor. But even this attempt to fight them off is frequently not quite real.

[1] Fisiologia del dolore. Firenze 1880.

As with tears, so with fainting. The greater number of fainting fits are either altogether false, or something between fainting and wakefulness. Women certainly, whether as prisoners or witnesses, are often very

uncomfortable in court, and if the discomfort is followed immediately by illness, dizziness, and great fear, fainting is natural. If only a little exaggeration, auto−suggestion, relaxation, and the attempt to dodge the unpleasant circumstance are added, then the fainting fit is ready to order, and the effect is generally in favor of the fainter. Although it is wrong to assume beforehand that fainting is a comedy, it is necessary to beware of deception.

An interesting question, which, thank heaven, does not concern the criminal justice, is whether women can keep their word. When a criminalist permits a woman to promise not to tell anybody else <p 345> of her testimony, or some similar na<i:>vet<e'>, he may settle his account with his conscience. The criminalist must not accept promises at all, and he is only getting his reward when women fool him. The fact is, that woman does not know the definite line between right and wrong. Or better, she draws the line in a different way; sometimes more sharply, but in the main more broadly than man, and in many cases she does not at all understand that certain distinctions are not permitted. This occurs chiefly where the boundaries are really unstable, or where it is not easy to understand the personality of the sufferer. Hence, it is always difficult to make woman understand that state, community, or other public weal, must in and for themselves be sacred against all harm. The most honest and pious woman is not only without conscience with regard to dodging her taxes, she also finds great pleasure in having done so successfully. It does not matter what it is she smuggles, she is glad to smuggle successfully, but smuggling is not, as might be supposed, a sport for women, though women need more nervous excitement and sport than men. Their attitude shows that they are really unable to see that they are running into danger because they are violating the law. When you tell them that the state is justified in forbidding smuggling, they always answer that they have smuggled such a very little, that nobody would miss the duties. Then the interest in smugglers and smuggling−stories is exceedingly great. We once had a girl who was born on the boundary between Italy and Austria. Her father was a notorious smuggler, the chief of a band that brought coffee and silk across the border. He grew rich in the trade, but he lost everything in an especially great venture, and was finally shot by the customs−officers at the boundary. If you could see with what interest, spirit, and keenness the girl described her father's dubious courses you would recognize that she had not the slightest idea that there was anything wrong in what he was doing.

Women, moreover, do not understand the least regulation. I frequently have had cases in which even intelligent women could not see why it was wrong to make a ``small'' change in a public register; why it was wrong to give, in a foreign city, a false name at the hotel; or why the police might forbid the shaking of dust−cloths over the heads of pedestrians, even from her ``own'' house; why the dog must be kept chained; and what good such ``vexations'' could do, anyway.

Again, tiny bits of private property are not safe from women. Note how impossible it is to make women understand that private <p 346> property is despoiled when flowers or fruit are plucked from a private garden. The point is so small, and as a rule, the property owner makes no objections, but it must be granted that he has the right to do so. Then their tendency to steal, in the country, bits of ground and boundaries is well known. Most of the boundary cases we have, involved the activity of some woman.

Even in their own homes women do not conceive property too rigidly. They appropriate pen, paper, pencils, clothes, etc., without having any idea of replacing what they have taken away. This may be confirmed by anybody whose desk is not habitually sacrosanct, and he will agree that it is not slovenliness, but defective sense of property that causes women to do this, for even the most consummate housekeepers do so. This defective property−sense is most clearly shown in the notorious fact that women cheat at cards. According to Lombroso, an educated, much experienced woman told him in confidence that it is difficult for her sex not to cheat at cards. Croupiers in gambling halls know things much worse. They say that they must watch women much more than men because they are not only more frequent cheaters, but more expert. Even at croquet and lawn−tennis girls are unspeakably smart about cheating if they can thereby put their masculine opponents impudently at a disadvantage.

We find many women among swindlers, gamblers, and counterfeiters; and moreover, we have the evidence of

experienced housewives, that the cleverest and most useful servants are frequently thievish. What is instructive in all these facts is the indefiniteness of the boundary between honesty and dishonesty, even in the most petty cases. The defect in the sense of property with regard to little things explains how many a woman became a criminal−− the road she wandered on grew, step by step, more extended. There being no definite boundary, it was inevitable that women should go very far, and when the educated woman does nothing more than to steal a pencil from her husband and to cheat at whist, her sole fortune is that she does not get opportunities or needs for more serious mistakes. The uneducated, poverty−stricken woman has, however, both opportunity and need, and crime becomes very easy to her. Our life is rich in experiment and our will too weak not to fail under the exigencies of existence, if, at the outset, a slightest deviation from the straight and narrow road is not avoided. If the justice is in doubt whether a woman has committed a great crime against property, his study will concern, not the deed, but <p 347> the time when the woman was in different circumstances and had no other opportunity to do wrong than mere nibbling at and otherwise foolish abstractions from other people's property. If this inclination can be proved, then there is justification for at least suspecting her of the greater crime.

The relation of women to such devilment becomes more instructive when it has to be discovered through woman witnesses. As a rule, there is no justification for the assumption that people are inclined to excuse whatever they find themselves guilty of. On the contrary, we are inclined to punish others most harshly where we ourselves are most guilty. And there is still another side to the matter. When an honest, well−conducted woman commits petty crimes, she does not consider them as crimes, she is unaware of their immorality, and it would be illogical for her to see as a crime in others that which she does not recognize as a crime in herself. It is for this reason that she tends to excuse her neighbor's derelictions. Now, when we try to find out from feminine witnesses facts concerning the objects on which we properly lay stress, they do not answer and cause us to make mistakes. What woman thinks is mere ``sweet− tooth'' in her servant girl, is larceny in criminal law; what she calls ``pin−money,'' we call deceit, or violation of trust; for the man whom the woman calls ``the dragon,'' we find in many cases quite different terms. And this feminine attitude is not Christian charity, but ignorance of the law, and with this ignorance we have to count when we examine witnesses. Of course, not only concerning some theft by a servant girl, but always when we are trying to understand some human weakness.

From honesty to loyalty is but a step. Often these traits lie side by side or overlap each other. Now, the criminal justice has, more frequently than appears, to deal with feminine loyalty. Problems of adultery are generally of subordinate significance only, but this loyalty or disloyalty often plays the most important r<o^>le in trials of all conceivable crimes, and the whole problem of evidence takes a different form according to the assumption that this loyalty does, or does not, exist. Whether it is the murder of a husband, doubtful suicide, physical mutilation, theft, perversion of trust, arson, the case takes a different form if feminine disloyalty can be proved. The rare reference to this important premise in the presentation of evidence is due to the fact that we are ignorant of its significance, that its determinative factors are hidden, and finally that its presentation is as a rule difficult. <p 348>

Public opinion on feminine loyalty is not flattering. Diderot asserts that there is no loyal woman who has not ceased being so, at least, in her imagination. Of course this does not mean much, for all of us have ideally committed many sins, but if Diderot is right, one may assume a feminine inclination to disloyalty. Most responsible for this is, of course, the purely sexual character of woman, but we must not do her the injustice, and ourselves the harm, of supposing that this character is the sole regulative principle; the illimitable feminine need for change is also responsible to a great degree. I doubt whether it could be proved in any collection of cases worth naming that a woman grew disloyal although her sexual needs were small; but that her sex does so is certain, and thence we must seek other reasons for their disloyalty. The love of change is fundamental and may be observed in recorded criminal cases. ``Even educated women,'' says Goltz,[1] ``can not bear continuous and uniform good fortune, and feel an inconceivable impulse to devilment and foolishness in order to get some variety in life.'' Now it will be much easier for the judge to determine whether the woman in the case had at the critical time an especial inclination to this ``devilment,'' than to discover whether her

own husband was sexually insufficient, or whatever similar secrets might be involved.

If woman, however, once has the impulse to seek variety, and the harmless and permissible changes she may provide herself are no longer sufficient or are lacking, the movement of her daily life takes a questionable direction. Then there is a certain tendency to deceit which is able to bring its particular consequences to bear. A woman has married, let us say, for love, or for money, for spite, to please her parents, etc., etc. Now come moments in her life in which she reflects concerning ``her'' reason for marriage, and the cause of these moments will almost always be her husband, i. e., he may have been ill−mannered, have demanded too much, have refused something, have neglected her, etc., and thus have wounded her so that her mood, when thinking of the reason of her marriage, is decidedly bad, and she begins to doubt whether her love was really so strong, whether the money was worth the trouble, whether she ought not to have opposed her parents, etc. And suppose she had waited, might she not have done better? Had she not deserved better? Every step in her musing takes her farther

[1] Bogumil Goltz: Zur Charakteristik u. Naturgeschichte der Frauen. Berlin 1863.

<349> from her husband. A man is nothing to a woman to whom he is not everything, and if he is nothing he deserves no especial consideration, and if he is undeserving, a little disloyalty is not so terrible, and finally, the little disloyalty gradually and naturally and smoothly leads to adultery, and adultery to a chain of crimes. That this process is not a thousand times more frequent, is merely due to the accident that the right man is not at hand during these so−called weak moments. Millions of women who boast of their virtue, and scorn others most nobly, have to thank their boasted virtue only to this accident. If the right man had been present at the right time they would have had no more ground for pride. There is only a simple and safe method for discovering whether a woman is loyal to her husband−−lead her to say whether her husband neglects her. Every woman who complains that her husband neglects her is an adulteress or in the way of becoming one, for she seeks the most thrifty, the really sound reason which would justify adultery. How close she has come to this sin is easily discoverable from the degree of intensity with which she accuses her husband.

Besides adultery, the disloyalty of widow and of bride, there is also another sense in which disloyalty may be important. The first is important only when we have to infer some earlier condition, and we are likely to commit injustice if we judge the conduct of the wife by the conduct of the widow. As a rule there are no means of comparison. In numerous cases the wife loves her husband and is loyal to him even beyond the grave, but these cases always involve older women whom lust no longer affects. If the widow is at all young, pretty, and comparatively rich, she forgets her husband. If she has forgotten him, if after a very short time she has again found a lover and a husband, whether for ``the sake of the poor children,'' or because ``my first one, of blessed memory, desired it,'' or because ``the second and the first look so much alike,'' or whatever other reason she might give, there is still no ground for supposing that she did not love her first husband, was disloyal to him, robbed and murdered him. She might have borne the happiest relations with him; but he is dead, and a dead man is no man. There are, again, cases in which the almost immediate marriage of a new−made widow implies all kinds of things, and often reveals in the person of the second husband the murderer of the first. When suspicions of such a situation occur, it is obviously necessary to go very slowly, but the first thing of importance is to keep tabs carefully on the <p 350> second husband. It is exceedingly self−contradictory in a man to marry a woman he knows to have murdered her first husband−− but if he had cared only about being her lover there would not have been the necessity of murdering the first.

The opposite of this type is anticipatory disloyalty of a woman who marries a man in order to carry on undisturbed her love−affair with another. That there are evil consequences in most cases is easy to see. Such marriages occur very frequently among peasants. The woman, e. g., is in love with the son of a wealthy widower. The son owns nothing, or the father refuses his permission, so the woman makes a fool of the father by marrying him and carries on her amour with the son, doubly sinful. Instead of a son, the lover may be only a servant, and then the couple rob the husband thoroughly −−especially if the second wife has no expectations of inheritance, there being children of a former marriage. Variations on this central theme occur as the person

of the lover changes to neighbor, cousin, friend, etc., but the type is obvious, and it is necessary to consider its possibilities whenever suspicion arises.

The disloyalty of a bride−−well, we will not bother with this poetical subject. Everybody knows how merciless a girl can be, how she leaves her lover for practical, or otherwise ignoble reasons, and everybody knows the consequences of such things.[1]

Section 75. (c) Love, Hate and Friendship.

If Emerson is right and love is no more than the deification of persons, the criminalist does not need to bother about this very rare paroxysm of the human soul. We might translate, at most, a girl's description of her lover who is possibly accused of some crime, from deified into human, but that is all. However, we do not find that sort of love in the law courts. The love we do find has to be translated into a simpler and more common form than that of the poet. The sense of self−sacrifice, with which Wagner endows his heroines, is not altogether foreign in our work; we find it among the lowest proletarian women, who immolate themselves for their husbands, follow them through the most tremendous distress, nurse and sustain them with hungry heroism. This is more remarkable than poetical self−sacrifice, but it is also different and is to be differently explained. The conditions which cause love can be understood in terms of the effects and forces of the daily life. And where we can not see it

[1] Sergi: Archivio di Psichologia. 1892. Vol. XIII.

<p 351> differently we shall be compelled to speak of it as if it were a disease. If disease is not sufficient explanation, we shall have to say with the Italians, ``l'amore <e'> une castigo di Dio."

Love is of greater importance in the criminal court than the statutes allow, and we frequently make great mistakes because we do not count it in. We have first of all to do our duty properly, to distinguish the biological difference between the human criminal and the normal human being, rather than to subsume every criminal case under its proper statute. When a woman commits a crime because of jealousy, when in spite of herself she throws herself away on a good−for−nothing; when she fights her rival with unconquerable hatred; when she bears unbelievable maltreatment; when she has done hundreds of other things−−who counts her love? She is guilty of crime; she is granted to have had a motive; and she is punished. Has enough been done when the jury acquits a jealous murderess, or a thrower of vitriol? Such cases are spectacular, but no attention is paid to the love of the woman in the millions of little cases where love, and love only, was the impulse, and the statute sentencing her to so and so much punishment was the outcome.

Now, study the maniacally−clever force of jealousy and then ask who is guilty of the crime. Augustine says, that whoever is not jealous is not in love, and if love and jealousy are correlate, one may be inferred from the other. What is at work is jealousy, what is to to be shown is love. That is, the evil in the world is due to jealousy, but this cause would be more difficult to prove than its correlate, love. And we know how difficult it is to conceal love,−−so difficult that it has become a popular proverb that when a woman has a paramour, everybody knows it but her husband. Now, if a crime has been committed through jealousy it would be simply na<i:>ve to ask whether the woman was jealous. Jealousy is rare to discover and unreliable, while her love−affair is known to everybody. Once this becomes an established fact, we can determine also the degree of her jealousy.

Woman gives the expression of her jealousy characteristic direction. Man attempts to possess his wife solely and without trouble, and hence is naturally jealous. The deceived woman turns all her hatred on her rival and she excuses the husband if only she believes that she still possesses, or has regained his love. It will therefore be a mistake to suppose that because a woman has again begun to love her husband, perhaps after a long−enduring jealousy, that <p 352> no such jealousy preceded or that she had forgiven her rival. It may be that she has come to an understanding with her husband and no longer cares about the rival, but this is only

either mere semblance or temporary, for the first suspicion of danger turns loose the old jealousy with all its consequences. Here again her husband is safe and all her rage is directed upon her rival. The typical cases are those of the attacks by abandoned mistresses at the weddings of their lovers. They always tear the wreath and veil from the bride's head, but it never is said that they knock the groom's top−hat off.

Another characteristic of feminine love which often causes difficulties is the passion with which the wife often gives herself to her husband. Two such different authors as Kuno Fischer and George Sand agree to this almost verbatim. The first says: ``What nature demands of woman is complete surrender to man," and the second: ``Love is a voluntary slavery for which woman craves by nature." Here we find the explanation of all those phenomena in which the will of the wife seems dead beside that of the husband. If a woman once depends on a man she follows him everywhere, and even if he commits the most disgusting crimes she helps him and is his loyalest comrade. We simply catalogue the situation as complicity, but we have no statutes for the fact that the woman naturally could do nothing else. We do not find it easy to discover the accomplices of a man guilty of a crime, but if there is a woman who really loves him we may be sure that she is one of them.

For the same reason women often bear interminably long maltreatment at the hands of their husbands or lovers. We think of extraordinary motives, but the whole thing is explained if the motive was really feminine love. It will be more difficult for us to believe in this love when the man is physically and mentally not an object of love. But the motives of causes of love of woman for man, though much discussed, have never been satisfactorily determined. Some authorities make strength and courage the motives, but there are innumerable objections, for historic lovers have been weak and cowardly, intellectual rather than foolish, though Schopenhauer says, that intelligence and genius are distasteful to women. No fixed reasons can be assigned. We have to accept the fact that a most disgusting man is often loved by a most lovely woman. We have to believe that love of man turns women from their romantic ideals. There has been the mistaken notion that only a common crime compels a woman to remain loyally with a thoroughly worthless <p 353> man, and again, it has been erroneously supposed that a certain woman who refused a most desirable heirloom left her by a man, must have known of some great crime committed by him. But we need no other motive for this action than her infinite love, and the reason of that infinity we find in the nature of that love. It is, in fact, woman's life, whereas it is an episode in the life of man. Of course, we are not here speaking of transitory inclinations, or flirtations, but of that great and profound love which all women of all classes know, and this love is overmastering; it conquers everything, it forgives everything, it endures everything.

There is still another inexplicable thing. Eager as man is to find his woman virgin, woman cares little about the similar thing in man. Only the very young, pure, inexperienced girl feels an instinctive revulsion from the real rou<e'>, but other women, according to Rochebrune, love a man in proportion to the number of other women who love or have loved him. This is difficult to understand, but it is a fact that a man has an easy task with women if he has a reputation of being a great hand with them. Perhaps this ease is only an expression of the conceit and envy of women, who can not bear the idea that a man is interested in so many others and not in themselves. As Balzac says, ``women prefer most to win a man who already belongs to another." The inconceivable ease with which certain types of men seduce women, and at whose heads women throw themselves in spite of the fact that these men have no praiseworthy qualities whatever, can only be so explained. Perhaps it is true, as is sometimes said, that here is a case of sexuality expressing itself in an inexplicable manner.

Of course there are friendships between men and women, although such friendships are very rare. There is no doubt that sexual interests tend easily to dominate such relations. We suppose them to be rare just because their existence requires that sexual motives be spontaneously excluded. There are three types of such friendships. 1. When the age of the friends is such as to make the suspicion of passion impossible. 2. When from earliest childhood, for one reason or another, a purely fraternal relationship has developed. 3. When both are of such nature that the famous divine spark can not set them afire. Whether there is an electrical influence between couples, as some scientists say, or not, we frequently see two people irrationally select each other, as if compelled by some evil force. Now this selection may result in nothing more than a friendship. Such

friendships are frequently claimed in trials, and <p 354> of course, they are never altogether believed in. The necessary thing in treating these cases is caution, for it will be impossible to prove these friendships unlikely, and hence unjust to deny them without further evidence. It will be necessary to discover whether the sexual interest is or can be excluded. If not, the friendship is purely a nominal one.

Friendship between women is popularly little valued. Comedies, comic papers, and criticisms make fun of it, and we have heard all too often that the news of the first gray hair, or the disloyalty of a husband, has its starting−point in a woman friend, and that women decorate themselves and improve themselves in order to worry their friends. One author wanted to show that friendships between two women were only conspiracies against a third, and Diderot said that there is a secret union among women as among priests of one and the same religion−−they hate each other, but they protect each other. The latter fact we see frequently enough in the examination of women witnesses. Envy, dislike, jealousy, and egoism play up vividly, and he is a successful judge who can discover how much of the evidence is born of these motives. But beyond a certain point, women co−operate. This point is easy to find, for it is placed where− ever feminine qualities are to be generalized. So long as we stick, during an examination, to a concrete instance, and so long as the witness observes no combination of her conduct and opinions with that of the object of her testimony, she will allow herself to be guided partly by the truth, partly by her opinions of the woman in question. But just as soon as we expressly or tacitly suggest common feminine qualities, or start to speak of some matter in which the witness herself feels guilty, she turns about and defends where before she had been attacking. In these cases we must try to find out whether we have become, ``general." If we have, we know why the witness is defending the accused.

We may say the same things of feminine hate that we have said of feminine love. Love and hate are only the positive and negative aspects of the same relation. When a woman hates you she has loved you, does love you, or will love you,−−this is a reliable rule for the many cases in which feminine hatred gives the criminalist work. Feminine hatred is much intenser than masculine hatred. St. Gregory says that it is worse than the devil's, for the devil acts alone while woman gets the devil to help her, and Stolle believes that a woman seeking revenge is capable of anything. We have here to remember that among women of the lower classes, hate, <p 355> anger, and revenge are only different stages of the same emotion. Moreover, nobody finds greater joy in revenge than a woman. Indeed I might say that revenge and the pursuit of revenge are specifically feminine. The real, vigorous man is not easily turned thereto. In woman, it is connected with her greater sensibility which causes anger, rage, and revenge to go further than in men. Lombroso has done most to show this, and Mantegazza cites numberless examples of the superior ease with which woman falls into paroxysms of rage. Hence, when some crime with revenge as motive is before us, and we have no way of getting at the criminal, our first suspicion should be directed toward a woman or an effeminate man. Further, when we have to make an orderly series of inferences, we will start from this proposition into the past, present, and future, and shall not have much to wonder at if the successful vengeance far exceeds its actual or fanciful occasion, and if, perhaps, a very long time has elapsed before its accomplishment. Nulla irae super iram mulieris.

Feminine cruelty is directly connected with feminine anger and hatred. Lombroso has already indicated how fundamental woman's inclination to cruelty is. The cases are well known, together with the frequent and remarkable combination of real kindness of heart with real bestiality. Perhaps it would be proper to conceive this cruelty as a form of defence, or the expression of defence, for we often find cruelty and weakness paired elsewhere, as among children, idiots, etc. It is particularly noticeable among cretins in the Alps. The great danger of the cretin's anger is well known there. Once, one of these unfortunates was tortured to death by another because he thought that his victim had received from the charitable monks a larger piece of bread than he. Another was killed because he had received a gift of two trousers buttons. These instances, I should think, indicate the real connection between cruelty and weakness. Cruelty is a means of defence, and hence is characteristic of the weaker sex. Moreover, many a curious bit of feminine cruelty is due to feminine traits misunderstood, suppressed, but in themselves good. Just as we know that frugality and a tendency to save in housekeeping may often lead to dishonesty, so we perceive that these qualities cause cruelty to servants, and

even the desire to put out of the way old and troublesome relatives who are eating the bread that belongs to husband and children.

These facts serve not only to explain the crime, but to reveal the criminal. If we succeed, other things being equal, in adducing <p 356> a number of feminine characteristics with one of which the cruelty of the crime may be connected and explained, we have a clew to the criminal. The instances mentioned,−−the motherly care of house and family, frugality, miserliness, hardness to servants, cruelty to aged parents,−−seem rare and not altogether rational, yet they occur frequently and give the right clew to the criminal. There are still other similar combinations. Everybody knows feminine love for trials at court, for the daily paper's reports of them, and for public executions. While the last were still common in Austria, newspapers concluded regularly with the statement that the ``tender'' sex was the great majority of the crowd that witnessed them. At public executions women of the lower class; at great trials, women of the higher classes, make up the auditors and spectators. Here the movement from eagerness, curiosity, through the desire for vigorous nervous stimulation, to hard−heartedness and undeniable cruelty, is clear enough.

There would be nothing for us to do with this fact if we had not to deal with the final expression of cruelty, i. e., murder; especially the specifically feminine forms of murder,−−child−murder and poisoning. These, of course, in particular the former, involve abnormal conditions which are subjects for the physician. At the same time it is the judge who examines and sentences, and he is required to understand these conditions and to consider every detail that may help him in drawing his conclusion.

That poisoning is mainly a feminine crime is a familiar fact of which modern medico−legal writers have spoken much; even the ancient authors, not medical, like Livy, Tacitus, etc., have mentioned it. It is necessary, therefore, carefully to study the feminine character in order to understand how and why women are given to this form of murder. To do so we need consider, however, only the ordinary factors of the daily life; the extraordinary conditions, etc., are generally superfluous.

Every crime that is committed is committed when the reasons for doing it outweigh the reasons for not doing it. This is true even of passional crimes, for a *pro* and *contra* must have presented themselves in spite of the lightninglike swiftness of the act. One appeared and then the other, the *pro* won and the deed was done. In other crimes this conflict lasts at least so long as to be definitely observable, and in the greater crimes it will, as a rule, take more time and more motive. The principles of good and of evil will really battle with each other, and when the individual is so depraved as no longer to <p 357> have good principles, their place is taken by fear of discovery and punishment, and by the question whether the advantage to be gained is worth the effort, etc. The commission of the crime is itself evidence that the reasons for it were all−powerful. Now suppose that a woman gets the idea of killing somebody. Here for a time *pro* and *contra* will balance each other, and when the latter are outweighed she will think that she _*must_ commit murder. If she does not think so she will not do so. Now, every murder, save that by poison, requires courage, the power to do, and physical strength. As woman does not possess these qualities, she spontaneously makes use of poison. Hence, there is nothing extraordinary or significant in this fact, it is due to the familiar traits of woman. For this reason, when there is any doubt as to the murderer in a case of poisoning, it is well to think first of a woman or of a weak, effeminate man.

The weakness of woman will help us in still another direction. It is easily conceivable that all forms of weakness will seek support and assistance, whether physical or moral. The latter is inclined in cases of need to make use, also, of such assistance as may be rendered by personal inward reflection. Now this reflection may be on the one hand, dissuasion, on the other hand persuasion, self− persuasion; the first subduing self−reproach, the latter, fear of discovery. Hence, a woman will try to persuade not only herself, but others also that she was justified in her course and will assign as reason, bad treatment. Now there might have been some bad treatment, but it will have been altered and twisted so utterly as to lose its original form and to become imaginatively unbearable. Thus, a series of conclusions from the reactions of the suspect to her environment may be easily found, and these are the more convincing if they have occurred within a rather

long period of time, in which they may be chronologically arranged, and from which a slow and definite intensification, usque ad ultimum, can be proved. Such an analysis is, of course, troublesome, but if done systematically, almost always rich in results.

The tricks of persuasion which are to suppress the fears of discovery are always helps of another sort. As a rule they are general, and point to the fact that the crime contemplated had occurred before without danger, that everything was intelligently provided for, etc. Now these circumstances are less dangerous, but they require consideration when they count on certain popular views, especially superstitions and certain customs and assumptions. Suppose, for example, that a young wife wants to get rid of her <p 358> old husband whom she had married for the sake of his money. Now certain proverbs point to the fact that old men who marry young women die soon after marriage. This popular view may be entirely justified in the fact that the complete alteration in the mode of life, the experience of uncustomary things, the excitement, the extreme tension, then the effort *in venere*, finally, perhaps also the use of popularly well−known stimulants, etc., may easily cause weakening, sickening, and as conclusion the death of the old man. But the public does not draw this kind of inference, it simply assumes, without asking the reason, that when an old man marries a young woman, he dies. Therefore a young wife may easily think, ``If I make use of poison nobody will wonder, nobody will see anything suspicious about the death. It is only an event which is universally supposed to happen. The old man died because he married me." Such ideas may easily seduce an uneducated woman and determine her conduct. Of course, they are not subject to observation, but they are not beyond control, if the popular views concerning certain matters are known as the views which determine standards. Therefore their introduction into the plot of the suspect may help us in drawing some useful inference.[1]

With regard to child−murder the consideration of psychopathic conditions need not absolutely be undertaken. Whether they are present must, of course, be determined, and therefore it is first of all necessary to learn the character of the suspect's conduct. The opportunity for this is given in any text−book on legal medicine, forensic psychopathology, and criminal psychology. There are a good many older authors.[2] Most of the cases cited by authorities show that women in the best of circumstances have behaved innumerable times in such a way that if they had been poor girls child−murder would immediately have been assumed. Again, they have shown that the sweetest and most harmless creatures become real beasts at the time of accouchement, or shortly after it develop an unbelievable hatred toward child and husband. Many a child− murder may possibly be explained by the habit of some animals of consuming their young immediately after giving birth to them. Such cases bind us in every trial for child−murder to have the mental state of the mother thoroughly examined by a psychiatrist, and to

[1] Cf H. Gross's Archiv. I, 306, III, 88, V, 207, V, 290.

[2] Wigand: Die Geburt des Mensehen. Berlin 1830. Klein <U:>ber Irrtum bei Kindesmord, Harles Jahrbuch, Vol. 3. Burdach Gerichts<a:>rztliche Arbeiten. Stuttgart, 1839.

<p 359> interpret everything connected with the matter as psychologist and humanitarian. At the same time it must not be forgotten that one of the most dangerous results is due to this attitude. Lawmakers have without further consideration kept in mind the mental condition of the mother and have made child−murder much less punishable than ordinary murder. It is inferred, therefore, that it is unnecessary to study the conditions which cause it. This is dangerous, because it implies the belief that the case is settled by giving a minimum sentence, where really an infinity of grades and differences may enter. The situation that the law−maker has studied is one among many, the majority of which we have yet to apprehend and to examine.

Section 76. (d) Emotional Disposition and Related Subjects.

Madame de Kr<u:>dener writes in a letter to Bernardin de St. Pierre: ``Je voulais <e^>tre sentie." These laconic words of this wise pietist give us an insight into the significance of emotional life of woman. Man wants to be understood, woman felt. With this emotion she spoils much that man might do because of his

sense of justice. Indeed, a number of qualities which the woman uses to make herself noted are bound up with her emotional life, more or less. Compassion, self−sacrifice, religion, superstition,−−all these depend on the highly developed, almost diseased formation of her emotional life. Feminine charity, feminine activity as a nurse, feminine petitions for the pardon of criminals, infinite other samples of women's kindly dispositions must convince us that these activities are an integral part of their emotional life, and that women perform them only, perhaps, in a kind of dark perception of their own helplessness. On the one side an unconscious egoism impels them to the defence of those who find themselves in a _*similar_ condition; on the other side, it is a feminine characteristic to apply anything she is to judge to herself first, and then to make her choice. That she does this, rests on the eminent overweight of emotion. So Schopenhauer says: ``Women are very sympathetic, but they are behind man in all matters of justice, probity, and scrupulous conscientiousness. Injustice is the fundamental feminine defect."[1] Schopenhauer should have added, ``because they are too sympathetic, because emotion takes up so much place in their minds that they have not enough left for justice." According to Proudhon, ``The conscience of woman

[1] Parerga and Paralipomena.

<p 360> is as much weaker than man's as her intelligence is smaller. Her morality is of a different sort, her ideas of right and wrong are different, being always on this or that side of justice, and never requiring any equivalence between rights and duties which are such a painful necessity to man." Spencer says,[1] briefly, that the feminine mind shows a definite lack with regard to the sense of justice.

These assertions show that women are deficient in justice, but do not show why. The deficiency is to be explained only in the super− abundance of emotional life. This superabundance clarifies a number of facts of their daily routine. We have, of course, to make a distinction between the feeling of a gentlewoman, of a peasant woman, and of the innumerable grades between the two, but this distinction is not essential. Both noble and proletarian are equally unjust, but the rich emotion restores a thousand times what may be missing in justice, and perhaps in many cases hits better upon what is absolutely right than the bare masculine sense of justice. We are, of course, frequently mistaken by relying on the testimony of women, but only when we assume that our rigorously judicial sentence is the only correct one, and when we do not know how women judge. Hence, we interpret women's testimonies with difficulty and rarely with correctness; we forget that almost every feminine statement contains in itself much more judgment than the testimony of men; we fail to examine how much real judgment it contains; and finally, we weigh this judgment in other scales than those used by the woman. We do best, therefore, when we take the testimony of man and woman together in order to find the right average. This is not easy, for we are unable to enter properly into the emotional life of woman, and can not therefore discount that tendency of hers to drag the objective truth in some biased direction. It might be theoretically supposed that a noble, kindly, feminine feeling would tend to reflect everything as better and gentler, and would tend to excuse and conceal. If that were so we might have a definite standard of valuation, and might be able to discount the feminine bias. But that is so in perhaps no more than half the cases that come before us. In all others woman has allowed herself to be moved to displeasure, and appears as the punishing avenger. Hence, she fights with all her strength on the side that seems to her to be oppressed and innocently persecuted, irrespective of whether it is

[1] Introduction to the Study of Sociology.

<p 361> the side of the accused or of his enemy. In consequence, we must first of all, when judging her statements, determine the direction in which her emotion impels her, and this can not be done with a mere knowledge of human nature. Nothing will do except a careful study of the specific feminine witness at the time she gives her evidence. And this requires the expenditure of much time, for, to plunge directly into the middle of things without having any means of comparison or relation, is to make judgment impossible or very unsafe. If you are to do it at all you must discuss other things first and even permit yourself the dishonesty of asking about matters which you already know in order to find some measure of the degree of feminine obliqueness. Of course, one discovers here only the degree of obliqueness, not its direction−−in the case

selected for comparison the woman might have judged too kindly, in the case in hand she may just as well be too rigorous. But all things have a definite limit, and hence, much practice and much goodwill will help us to discover the direction of obliqueness.

When we inquire into the emotional life of the simple, uneducated women, we find it to be fundamentally the same as that of women of other classes, but different in expression, and it is the expression we have to observe. Its form is often raw, therefore difficult to discover. It may express itself in cursing and swearing, but it is still an expression of emotion, just as are the mother's curses or beatings of her child because it has fallen and hurt itself. But observe that the prevalence of emotion is so thoroughly a feminine condition that it is clearly noticeable only where femininity itself is explicit−− therefore, always weaker among masculine women, and in the single individual most powerful when femininity is most fully developed. It grows in the child, remains at a constant level when woman becomes completely woman, and decreases when, in advanced age, the differences in sex begin to disappear. Very old men and very old women are also in this matter very close together.

Section 77. (e) Weakness.

``Frailty, thy name is woman," says Shakespeare, and Corvin explains this in teasing fashion: ``Women pray every day, `Lead us not into temptation, for see, dear God, if you do so I can't resist it.' " Even Kant[1] takes feminine weakness as a distinguishing criterion: ``In order to understand the whole of mankind we need

[1] Menschenkunde. Leipzig 1831.

<p 362> only to turn our attention to the feminine sex, for where the force is weaker the tool is so much the more artistic." Experienced criminalists explain the well−known fact that women are the chief sources of anonymous letters by their weakness. From the physical inferiority of woman her mental inferiority may be deduced, and though we learn a hundred times that small, weak men can be mentally stronger than great and strong ones, it is, of course, natural, that as a rule the outcome of a powerful body is also a powerful mind. The difficulty is to discover in what feminine weakness expresses itself. The frequently joked−about hen−pecking of men has been explained by Voltaire as the fulfilment of the divine purpose of taming men through the medium of the specially created instrument−−woman. Victor Hugo calls men only woman's toys. ``Oh, this lofty providence which gives each one its toy, the doll to the child, the child to the man, the man to the woman, the woman to the devil." The popular proverb also seems to assign them considerable strength, at least to aged women. For we hear in all kinds of variations the expression, ``An old woman will venture where the devil does not dare to tread." Nor must we underestimate the daily experience of feminine capacity to bear pain. Midwives of experience unanimously assure us that no man would bear what a woman regularly has to, every time she gives birth to a child; and surgeons and dentists assure us similarly. Indeed the great surgeon, Billroth, is said to have asserted that he attempted new methods of operation on women first because they are less subject to pain, for like savages they are beings of a lower status and hence better able to resist than men. In the light of such expressions we have to doubt the assertion that women are distinguished by weakness, and yet that assertion is correct. The weakness must, however, not be sought where we expect to find it, but in the quite different feminine intelligence. Wherever intelligence is not taken into consideration, woman is likely to show herself stronger than man. She is better able to stand misfortune, to nurse patients, to bear pain, to bring up children, to carry out a plan, to persevere in a plan. It would be wrong to say that feminine weakness is a weakness of will, for most examples show that women's wills are strong. It is in matters of intelligence that they fail. When somebody has to be persuaded, we find that a normally−organized man may agree when he is shown a logically−combined series of reasons. But the feminine intelligence is incapable of logic; indeed, we should make a mistake in paying honor to the actual feminine in woman if she <p 363> were capable of logic. She is rather to be persuaded with apparent reasons, with transitory and sparkling matters that have only the semblance of truth. We find her too ready to agree, and blame her will when it is only her different form of intelligence. She persuades herself in the same way. An epithet, a sparkling epigram, a pacifying reflection is enough for her; she does not need a whole construction of reason,

and thus she proceeds to do things that we again call ``weak." Take so thoroughly a feminine reflection as this. ``The heart seems to beat−−why shouldn't it beat for somebody?" and the woman throws herself on the breast of some adventurer The world that hears of this fact weeps over feminine ``weakness," while it ought really to weep over defective intelligence and bad logic. That the physiological throb of the heart need not become significant of love, that the owner of a beating heart need not be interested in some man, and certainly not in that particular adventurer, she does not even consider possible. She is satisfied with this clean−cut, sparkling syllogism, and her understanding is calm. The judge in the criminal court must always first consider the weakness of the feminine intelligence, not of the feminine will.

It is supposed to be weakness of will which makes woman gossipy, unable to keep a secret. But here again it is her understanding that is at fault. This is shown by the fact, already thoroughly discussed by Kant, that women are good keepers of their own secrets, but never of the secrets of others. If this were not a defect of intelligence they would have been able to estimate the damage they do. Now, every one of us criminalists knows that the crime committed, and even the plan for it, has in most cases been betrayed by women. We can learn most about this matter from detectives. who always go to women for the discovery of facts, and rarely without success. Of course, the judge must not act like a detective, but he must know when something is already a matter of discussion and its source is sought, where to look. He is to look for the woman in the case.

Another consideration of importance is the fact that women who have told secrets have also altered them. This is due to the fact that because they are secrets the whole is not told them and they have had to infer much, or they have not properly understood what was told. Now, if we perceive that only a part of the revealed secret can be correct, the situation may be inferred with complete safety, but only by remembering this curious trait of feminine intelligence. We have only to ask what illogical elements does the matter contain? When these are discovered we have to ask, what <p 364> is their logical form? If the process is followed properly we get at the truth that what happens happens logically, but what is thought, is thought illogically even by women.

When we summarise all we know about woman we may say briefly: Woman is neither better nor worse, neither more nor less valuable than man, but she is different from him and inasmuch as nature has created every object correctly for its purpose, woman has also been so created. The reason of her existence is different from that of man's and hence, her nature is different.

Section 78. (b) Children.

The special character of the child has to be kept in mind both when it appears as witness and as accused. To treat it like an adult is always wrong. It would be wrong, moreover, to seek the differences in its immaturity and inexperience, in its small knowledge and narrower outlook. This is only a part of the difference. The fact is, that because the child is in the process of growth and development of its organs, because the relations of these to each other are different and their functions are different, it is actually a different kind of being from the adult. When we think how different the body and actions of the child are, how different its nourishment, how differently foreign influences affect it, and how different its physical qualities are, we must see that its mental character is also completely different. Hence, a difference in degree tells us nothing, we must look for a difference in kind. Observations made by individuals are not enough. We must undertake especial studies in the very rich literature.[1]

Section 79. (I) General Consideration.

One does not need to have much knowledge of children to know that as a rule, children are more honest and straightforward than adults. They are good observers, more disinterested and hence unbiased in giving evidence, but because of their weakness, more subject to the influence of other people. Apart from intentional in−

[1] Tracy: The Psychology of Childhood. Boston 1894. M. W. Shinn: Notes on the Development of a Child.

Berkeley 1894. L. Ferriani: Minoretti deliquenti. Milano 1895. J. M. Baldwin: Mental Development in the Child, etc. New York 1895. Aussage der Wirklichkeit bei Schulkindern. Beitrage z. Psych. d. Aussage. II. 1903 Pl<u:>schke: Zeugenaussage der Sch<u:>ler: in *Rechtsschutz* 1902. Oppenheim: The Development of the Child. New York 1890.

<p 365> fluences there is the tremendous influence of selected preconceptions. If a child is an important witness we can never get the truth from him until we discover what his ideals are. It is, of course, true that everybody who has ideals is influenced by them, but it is also true that children who have adventurous, imaginative tendencies are so steeped in them that everything they think or do gets color, tone, and significance from them. What the object of adventure does is good, what it does not do is bad, what it possesses is beautiful, and what it asserts is correct. Numerous unexplainable assertions and actions of children are cleared up by reference to their particular ideals, if they may be called ideals.

As a rule, we may hold that children have a certain sense of justice, and that they find it decidedly unpleasant to see anybody treated otherwise than he deserves. But in this connection it must be considered that the child has its own views as to what a person's deserts are, and that these views can rarely be judged by our own. In the same way it is certain that, lacking things to think or to trouble about, children are much interested in and remember well what occurs about them. But, again, we have to bear in mind that the interest itself develops from the child's standpoint and that his memory constructs new events in terms of his earlier experiences. As a rule, we may presuppose in his memory only what is found already in his occupations. What is new, altogether new, must first find a function, and that is difficult. If, now, a child remembers something, he will first try to fit it to some function of memory already present and this will then absorb the new fact, well or ill, as the case may be. The frequent oversight of this fact is the reason for many a false interpretation of what the child said; he is believed to have perceived falsely and to have made false restatements, when he has only perceived and restated in his own way.

As children have rarely a proper sense of the value of life, they observe an undubitable death closely without much fear. This explains many an unbelievable act of courage or clear observation in a child in cases where an adult, frightened, can see nothing. It is, hence, unjust to doubt many a statement of children, because you doubt their ``courage.'' ``Courage'' was not in question at all.

Concerning the difference between boys and girls, L<o:>bisch[1] says rightly, that girls remember persons better, and boys, things. He adds, moreover: ``The more silent girl, who is given to observe

[1] L<o:>bisch: Entwicklungegeschichte der Seele des Kindes. Vienna 1851.

<p 366> what is before her, shows herself more teachable than the spiteful and also more imaginative boy who understands with difficulty because he is intended to be better grounded and to go further in the business of knowing. The girl, all in all, is more curious; the boy, more eager to know. What he fails in, what he is not spurred to by love or talent, he throws obstinately aside. While the girl loyally and trustfully absorbs her teachings, the boy remains unsatisfied without some insight into the *why* or *how*, without some proof. The boy enters daily more and more into the world of concepts, while the girl thinks of objects not as members of a class, but as definite particular things.''

Section 80. (2) *Children as Witnesses*.

Once, in an examination of the value of the testimony of children, I found it to be excellent in certain directions because not so much influenced by passion and special interest as that of adults, and because we may assume that children have classified too little rather than too much; that they frequently do not understand an event but perceive instinctively that it means disorder, and hence, become interested in it. Later the child gets a broader horizon and understands what he has not formerly understood, although, possibly, not altogether with correctness.

I have further found that the boy just growing out of childhood, in so far as he has been well brought up, is especially the best observer and witness there is. He observes everything that occurs with interest, synthesizes events without prejudice, and reproduces them accurately, while the girl of the same age is often an unreliable, even dangerous witness. This is almost always the case when the girl is in some degree talented, impulsive, dreamy, romantic, and adventurous,−−she expresses a sort of weltschmerz connected with ennui. This comes early, and if a girl of that age is herself drawn into the circle of the events in question, we are never safe from extreme exaggeration. The merest larceny becomes a small robbery; a bare insult, a remarkable attack; a foolish quip, an interesting seduction; and a stupid, boyish conversation, an important conspiracy. Such causes of mistakes are well−known to all judges; at the same time they are again and again permitted to recur.

The sole means of safety from them is the clearest comprehension possible of the mental horizon of the child in question. We have very little general knowledge about it, and hence, are much indebted to the contemporary attempts of public−school teachers to supply <p 367> the information. We all know that we must make distinctions between city and country children, and must not be surprised at the country child who has not seen a gas−lamp, a railroad, or something similar. Stanley Hall tried to discover from six year old children whether they really knew the things, the names of which they used freely. It seemed, as a result, that 14% of them had never seen a star; 45% had never been in the country; 20% did not know that milk came from a cow; 50% that fire−wood comes from trees, 13% to 15% the difference between green, blue and yellow; and 4% had never made the acquaintance of a pig.

Karl Lange made experiments (reported in ``<U:>ber Apperzeption," Plauen, 1889) on 500 pupils in 33 schools in small towns. The experiment showed that 82% had never seen sun−rise; 77% a sunset; 36% a corn field; 49% a river; 82% a pond; 80% a lock; 37% had never been in the woods, 62% never on the mountains, and 73% did not know how bread was made from grain. Involuntarily the question arises, what must be the position of the unfortunate children of large cities, and moreover, what may we expect to hear from children who do not know things like that, and at the same time speak of them easily? Adults are not free from this difficulty either. We have never yet seen a living whale, or a sandstorm in the Sahara, or an ancient Teuton, yet we speak of them confidently and profoundly, and never secure ourselves against the fact that we have never seen them. Now, as we of the ancient Teuton, so children of the woods; neither have seen them, but one description has as much or as little value as the other.

Concerning the integration of senses, Binet and Henri[1] have examined 7200 children, whom they had imitate the length of a model line, or pick out from a collection of lines those of similar length. The latter experiment was extraordinarily successful.

The senses of children are especially keen and properly developed. It is anatomically true that very young children do not hear well; but that is so at an age which can not be of interest to us. Their sense of smell is, according to Heusinger, very dull, and develops at the time of puberty, but later observers, in particular those who, like Hack, Cloquet and others, have studied the sense of smell, say nothing about this.

Concerning the accuracy of representation in children authorities are contradictory. Montaigne says that all children lie and are

[1] Le D<e'>veloppement de la M<e'>moire Visuelle chez les Enfants. Rev. Gen. des Sciences V. 5.

<p 368> obstinate. Bourdin corroborates him. Maudsley says that children often have illusions which seem to them indubitably real images, and Mittermaier says that they are superficial and have youthful fancies. Experience in practice does not confirm this judgment. The much experienced Herder repeatedly prizes children as born physiognomists, and Soden values the disinterestedness of children very highly. According to L<o:>bisch, children tell untruths without lying. They say only what they have in mind, but they do not know and care very little whether their mental content is objective and exists outside of them, or whether only half real and the rest fanciful. This is confirmed by legal experience which shows us, also, that the subjective half

of a child's story may be easily identified. It is characteristically different from the real event and a confusion of the two is impossible.

We must also not forget that there are lacunae in the child's comprehension of what it perceives. When it observes an event, it may, e. g., completely understand the first part, find the second part altogether new and unintelligible, the third part again comprehensible, etc. If the child is only half−interested, it will try to fill out these lacunae by reflection and synthesis, and may conceivably make serious blunders. The blunders and inaccuracies increase the further back the event goes into the child's youth. The real capacity for memory goes far back. Preyer[1] tells of cases in which children told of events that they had experienced at thirty−two, twenty−four, and even eighteen months, and told them correctly. Of course, adults do not recall experiences of such an early age, for they have long since forgotten them. But very small children can recall such experiences, though in most cases their recollection is worthless, their circle of ideas being so small that the commonest experiences are excluded from adequate description. But they are worth while considering when a mere fact is in question, or is to be doubted (Were you beaten? Was anybody there? Where did the man stand?).

Children's determinations of time are unreliable. Yesterday and to−day are easily confused by small children, and a considerably advanced intelligence is necessary to distinguish between yesterday and a week ago, or even a week and a month. That we need, in such cases, correct individualization of the witness is self−evident. The conditions of the child's bringing−up, the things he learned to know, are what we must first of all learn. If the question in hand

[1] W. Preyer: Die Seele des Kindes: Leipzig 1890.

<p 369> can fit into the notion the child possesses, he will answer better and more if quite unendowed, than if a very clever child who is foreign to the notions of the defined situation. I should take intelligence only to be of next importance in such cases, and advise giving up separating clever from stupid children in favor of separating practical and unpractical children. The latter makes an essential difference. Both the children of talent and stupid children may be practical or unpractical. If a child is talented and practical he will become a useful member of society who will be at home everywhere and will be able to help himself under any circumstances. If a child is talented and unpractical, it may grow up into a professor, as is customarily expected of it. If a child is untalented and practical, it will properly fill a definite place, and if it has luck and ``pull'' may even attain high station in life. If it is untalented and unpractical it becomes one of those poor creatures who never get anywhere. For the r<o^>le of witness the child's practicality is the important thing. The practical child will see, observe, properly understand, and reproduce a group of things that the unpractical child has not even observed. Of course, it is well, also, to have the child talented, but I repeat: the least clever practical child is worth more as witness than the most clever unpractical child.

What the term ``practical'' stands for is difficult to say, but everybody knows it, and everybody has seen, who has cared about children at all, that there are practical children.

Section 81. (3) *Juvenile Delinquency*.

There have never lacked authors who have assigned to children a great group of defects. Ever since Lombroso it has been the custom in a certain circle to find the worst crimes already foreshadowed in children. If there are congenital criminals it must follow that there are criminals among children. It is shown that the most cruel and most unhuman men, like Nero, Caracalla, Caligula, Louis XI, Charles IX, Louis XIII, etc., showed signs of great cruelty, even in earliest childhood. Perez cites attacks of anger and rage in children; Moreau, early development of the sense of vengeance, Lafontaine, their lack of pity. Nasse also calls attention to the cruelty and savagery of large numbers of children, traits shown in their liking for horror−stories, in the topsy−turvy conclusion of the stories they tell themselves, in their cruelty to animals. Broussais[1]

[1] ``Irritation et Folie."

<p 370> says, ``There is hardly a lad who will not intentionally abuse weaker boys. This is his first impulse. His victim's cries of pain restrain him for a moment from further maltreatment, if the love of bullying is not native with him. But at the first offered opportunity he again follows his instinctive impulse."

Even the power of training is reduced and is expressed in the proverb, that children and nations take note only of their last beating. The time about, and especially just before, the development of puberty seems to be an especially bad one, and according to Voisin[1] and Friedreich,[2] modern man sees in this beginning of masculinity the cause of the most extraordinary and doubtful impulses. Since Esquirol invented the doctrine of monomanias there has grown up a whole literature, especially concerning pyromania among girls who are just becoming marriageable, and Friedreich even asserts that all pubescent children suffer from pyromania, while Grohmann holds that scrofulous children are in the habit of stealing.

When this literature is tested the conclusion is inevitable that there has been overbold generalization. One may easily see how. Of course there are badly behaved children, and it is no agreement with the Italian positivists to add, also, that a large number of criminals were good for nothing even in their earliest youth. But we are here concerned with the specific endowment of childhood, and it is certainly an exaggeration to set this lower than that of maturity. If it be asked, what influence nurture and training have if children are good without it, we may answer at once, that these have done enough in having supplied a counterbalance to the depraving influences of life,−−the awakening passions and the environment.

Children who are bad at an early age are easily noticeable. They make noise and trouble as thousands of well−behaved children do not, and a poor few of such bad ones are taken to be representative of all. What is silent and not significant, goes of itself, makes no impression, even though it is incomparably of greater magnitude. Individual and noisy cases require so much attention that their character is assigned to the whole class. Fortune−telling, dreams, forewarnings, and prophecies are similarly treated. If they do not succeed, they are forgotten, but if in one case they succeed, they make a great noise. They appear, therefore, to seduce the mind

[1] Des Causes Marales et Physiques des Maladies Mentales. Paris 1826.

[2] System der Gerichtlichen Psychologie. Regensburg 1852.

<p 371> into incorrectly interpreting them as typical. And generally, there is a tendency to make sweeping statements about children. ``If you have understood this, you understand that also," children are often told, and most of the time unjustly. The child is treated like a grown man to whom _*this_ has occurred as often as *that*, and who has intelligence enough and experience enough to apply *this* to *that* by way of identification. Consider an exaggerated example. The child, let us say, knows very well that stealing is dishonorable, sinful, criminal. But it does not know that counterfeiting, treachery, and arson are forbidden. These differences, however, may be reduced to a hair. It knows that stealing is forbidden, but considers it permissible to ``rag" the neighbors' fruit. It knows that lying is a sin, but it does not know that certain lies become suddenly punishable, according to law, and are called frauds. When, therefore, a boy tells his uncle that father sent him for money because he does not happen to have any at home, and when the little rascal spends the money for sweets, he may perhaps believe that the lie is quite ugly, but that he had done anything objectively punishable, he may be totally unaware. It is just as difficult for the child to become subjective. The child is more of an egoist than the adult; on the one hand, because it is protected and watched in many directions by the adult; on the other, because, from the nature of things, it does not have to care for anybody, and would go ship−wreck if it were not itself cared for. The natural consequences are that it does not discover the limits between what is permissible, and what is not permissible. As Kraus says,[1] ``Unripe youth shows a distinct quality in distinguishing good and evil. A child of this age, that is required to judge the action or relations of persons, will not keep one waiting for the proper solution, but if the action is brought into relation to its selfhood, to its

own personality, there is a sudden disingenuity, a twisting of the judgment, an incapacity in the child to set itself at the objective point of view." Hence, it is wrong to ask a child: ``Didn't you know that you should not have done this thing?" The child will answer, ``Yes, I knew," but it does not dare to add, ``I knew that other people ought not do it, but I might." It is not necessary that the spoiled, pampered pet should say this; any child has this prejudiced attitude. And how shall it know the limit between what is permitted it, and what is not? Adults must work, the child plays; the mother must cook, the child comes to the

[1] Die Psychologie des Verbrechens. T<u:>bingen 1884.

<p 372> laden table; the mother must wash, the child wears the clean clothes; it gets the titbits; it is protected against cold; it is forgiven many a deed and many a word not permitted the adult. Now all of a sudden it is blamed because it has gone on making use of its recognized privileges. Whoever remembers this artificial, but nevertheless necessary, egoism in children will have to think more kindly of many a childish crime. Moreover, we must not overlook the fact that the child does many things simply as blind imitation. More accurate observation of this well known psychological fact will show how extensive childish imitation is. At a certain limit, of course, liability is here also present, but if a child is imitating an imitable person, a parent, a teacher, etc., its responsibility is at an end.

All in all, we may say that nobody has brought any evidence to show that children are any worse−behaved than adults. Experience teaches that hypocrisy, calculating evil, intentional selfishness, and purposeful lying are incomparably rarer among children than among adults, and that on the whole, they observe well and willingly. We may take children, with the exception of pubescent girls, to be good, reliable witnesses.

Section 82. (c) Senility.

It would seem that we lawyers have taken insufficient account of the characteristics of senility. These characteristics are as definitive as those of childhood or of sex, and to overlook them may lead to serious consequences. We shall not consider that degree of old age which is called second childhood. At that stage the question seriously arises whether we are not dealing with the idiocy of age, or at least with a weakness of perception and of memory so obvious that they can not be mistaken.

The important stage is the one which precedes this, and in which a definite decline in mental power is not yet perceivable. Just as we see the first stage of early youth come to an end when the distinction between boy and girl becomes altogether definite, so we may observe that the important activity of the process of life has run its course when this distinction begins to degenerate. It is essentially defined by the approximation to each other of the external appearance of the two sexes,−−their voices, their inner character, and their attitude. What is typically masculine or feminine disappears. It is at this point that extreme old age begins. The number of years, the degree of intelligence, education, and other differences <p 373> are of small importance, and the ensuing particularities may be easily deduced by a consideration of the nature of extreme old age. The task of life is ended, because the physical powers have no longer any scope. For the same reason resistance to enemies has become lessened, courage has decreased, care about physical welfare increased, everything occurs more slowly and with greater difficulty, and all because of the newly−arrived weakness which, from now on, becomes the denotative trait of that whole bit of human nature. Hence, Lombroso[1] is not wrong in saying that the characteristic diseases of extreme old age are rarer among women than among men. This is so because the change in women is not so sudden, nor so powerful, since they are weak to begin with, while man becomes a weak graybeard suddenly and out of the fullness of his manly strength. The change is so great, the difference so significant and painful, that the consequence must be a series of unpleasant properties,−−egoism, excitability, moroseness, cruelty, etc. It is significant that the very old man assumes all those unpleasant characteristics we note in eunuchs−−they result from the consciousness of having lost power.

It is from this fact that Kraus (loc. cit.) deduces the crimes of extreme old age. ``The excitable weakness of the old man brings him into great danger of becoming a criminal. The excitability is opposed to slowness and

one−sidedness in thought; he is easily surprised by irrelevancies; he is torn from his drowse, and behaves like a somnolent drunkard.... The very old individual is a fanatic about rest−−every disturbance of his rest troubles him. Hence, all his anger, all his teasing and quarreling, all his obstinacy and stiffness, have a single device: `Let me alone.' "

This somnolent drunkenness is variously valued. Henry Holland, in one of his ``Fragmentary Papers," said that age approximates a condition of dreams in which illusion and reality are easily confused. But this can be true only of the last stages of extreme old age, when life has become a very weak, vegetative function, but hardly any crimes are committed by people in this stage.

It would be simpler to say that the old man's weakness gives the earlier tendencies of his youth a definite direction which may lead to crime. All diseases develop in the direction of the newly developing weakness. But selfishness or greed are not young. Hence we must assume that an aging man who has turned miser began by being prudent, but that he did not deny himself and his friends because he knew that he was able to restore, later, what they con−

[1] The Female Offender.

<p 374> sumed. Now he is old and weak, he knows that he can no longer do this easily, i. e., that his money and property are all that he has to depend on in his old age, and hence, he is very much afraid of losing or decreasing them, so that his prudence becomes miserliness, later mania for possession, and even worse; finally it may turn him into a criminal.

The situation is the same sexually. Too weak to satisfy natural instincts in adults, he attacks immature girls, and his fear of people he can no longer otherwise oppose turns him into a poisoner. Drobisch finds that by reason of the alteration of characteristics, definite elements of the self are distinguishable at every stage. The distinguishing element in extreme old age, in senility, is the loss of power, and if we keep this in mind we shall be able to explain every phenomenon characteristic of this period.

Senile individuals require especial treatment as witnesses. An accurate study of such people and of the not over−rich literature concerning them will, however, yield a sufficient basis to go on. What is most important can be found in any text−book on psychology. The individual cases are considerably helped by the assumption that the mental organization of senility is essentially simplified and narrowed to a few types. Its activities are lessened, its influences and aims are compressed, the present brings little and is little remembered, so that its collective character is determined by a resultant, composed of those forces that have influenced the man's past life. Accurate observation will reveal only two types of senility.[1] There is the embittered type, and there is the character expressed in the phrase, ``to understand all is to forgive all." Senility rarely succeeds in presenting facts objectively. Everything it tells is bound up with its judgment, and its judgment is either negative or positive. The judgment's nature depends less on the old man's emotional character than on his experience in life. If he is one of the embittered, he will probably so describe a possibly harmful, but not bad event, as to be able to complain of the wickedness of the world, which brought it about, that at one time such and such an evil happened to him. The excusing senile will begin with ``Good God, it wasn't so bad. The people were young and merry, and so one of them−−." That the same event is presented in a fundamentally different light by each is obvious. Fortunately, the senile is easily seen through and his first words show how he looks at things. He makes difficulties mainly by introducing memories

[1] H. Gross: Lehrbuch f<u:>r den Ausforschungsdienst der Gendarmerie.

<p 375> which always color and modify the evidence. The familiar fact that very old men remember things long past better than immediate occurrences, is to be explained by the situation that the ancient brain retains only that which it has frequently experienced. Old experiences are recalled in memory hundreds and hundreds of times, and hence, may take deep root there, while the new could be repeated, only a few times, and hence

had not time to find a place before being forgotten. If the old man tells of some recent event, some similar remote event is also alive in his mind. The latter has, however, if not more vivid at least equally vigorous color, so that the old man's story is frequently composed of things long past. I do not know how to eliminate these old memories from this story. There are always difficulties, particularly as personal experiences of evil generally dominate these memories. It is not unjust, that proverb which says ``If youth is at all silly, old age remembers it well."

Section 83. (d) Differences in Conception.

I should like to add to what precedes, that senility presents fact and judgment together. In a certain sense every age and person does so and, as I have repeatedly said, it would be foolish to assert that we have the right to demand only facts from witnesses. Setting aside the presence of inferences in most sense−perceptions, every exposition contains, without exception, the judgment of its subject− matter, though only, perhaps, in a few dry words. It may lie in some choice expression, in the tone, in the gesture but it is there, open to careful observation. Consider any simple event, e. g., two drunkards quarreling in the street. And suppose we instruct any one of many witnesses to tell us only the facts. He will do so, but with the introductory words, ``It was a very ordinary event," ``altogether a joke," ``completely harmless," ``quite disgusting," ``very funny," ``a disgusting piece of the history of morals," ``too sad," ``unworthy of humanity," ``frightfully dangerous," ``very interesting," ``a real study for hell," ``just a picture of the future," etc. Now, is it possible to think that people who have so variously characterized the same event will give an identical description of the mere fact? They have seen the event in accordance with their attitude toward life. One has seen nothing; another this; another that; and, although the thing might have lasted only a very short time, it made such an impression that each has in mind a completely different picture which he now reproduces.[1] As Volkmar said, ``One

[1] Cf. H. Gross's Archiv XIV, 83.

<p 376> nation hears in thunder the clangor of trumpets, the hoof−beats of divine steeds, the quarrels of the dragons of heaven; another hears the mooing of the cow, the chirp of the cricket, the complaint of the ancestors; still another hears the saints turn the vault of heaven, and the Greenlander, even the quarrel of bewitched women concerning a dried skin." And Voltaire says, ``If you ask the devil what beauty is, he will tell you that beauty is a pair of horns, four hoofs, and a tail." Yet, when we ask a witness what is beautiful, we think that we are asking for a brute fact, and expect as reliable an answer as from a mathematician. We might as well ask for cleanliness from a person who thinks he has set his house in order by having swept the dirt from one corner to another.

To compare the varieties of intellectual attitude among men generally, we must start with sense−perception, which, combined with mental perception, makes a not insignificant difference in each individual. Astronomers first discovered the existence of this difference, in that they showed that various observers of contemporaneous events do not observe at the same time. This fact is called ``the personal equation." Whether the difference in rate of sense−perception, or the difference of intellectual apprehension, or of both together, are here responsible, is not known, but the proved distinction (even to a second) is so much the more important, since events which succeed each other very rapidly may cause individual observers to have quite different images. And we know as little whether the slower or the quicker observer sees more correctly, as we little know what people perceive more quickly or more slowly. Now, inasmuch as we are unable to test individual differences with special instruments, we must satisfy ourselves with the fact that there are different varieties of conception, and that these may be of especial importance in doubtful cases, such as brawls, sudden attacks, cheating at cards, pocket−picking, etc.

The next degree of difference is in the difference of observation. Schiel says that the observer is not he who sees the thing, but who sees of what parts it is made. The talent for such vision is rare. One man overlooks half because he is inattentive or is looking at the wrong place; another substitutes his own inferences for objects, while another tends to observe the quality of objects, and neglects their quantity; and still another

divides what is to be united, and unites what is to be separated. If we keep in mind what profound differences may result in this way, we must recogruze the source of the conflicting assertions by witnesses. And we shall have to <p 377> grant that these differences would become incomparably greater and more important if the witnesses were not required to talk of the event immediately, or later on, thus approximating their different conceptions to some average. Hence we often discover that when the witnesses really have had no chance to discuss the matter and have heard no account of it from a third person, or have not seen the consequences of the deed, their discussions of it showed distinct and essential differences merely through the lack of an opportunity or a standard of correction. And we then suppose that a part of what the witnesses have said is untrue, or assume that they were inattentive, or blind.

Views are of similar importance.[1] Fiesto exclaims, ``It is scandalous to empty a full purse, it is impertinent to misappropriate a million, but it is unnamably great to steal a crown. The shame decreases with the increase of the sin." Exner holds that the ancients conceived Oedipus not as we do; they found his misfortune horrible; we find it unpleasant.

These are poetical criminal cases presented to us from different points of view; and we nowadays understand the same action still more differently, and not only in poetry, but in the daily life. Try, for example, to get various individuals to judge the same formation of clouds. You may hear the clouds called flower−stalks with spiritual blossoms, impoverished students, stormy sea, camel, monkey, battling giants, swarm of flies, prophet with a flowing beard, dunderhead, etc. We have coming to light, in this accidental interpretation of fact, the speaker's view of life, his intimacies, etc. This emergence is as observable in the interpretation also of the ordinary events of the daily life. There, even if the judgments do not vary very much, they are still different enough to indicate quite distinct points of view. The memory of the curious judgment of one cloud−formation has helped me many a time to explain testimonies that seemed to have no possible connection.

Attitude or feeling−−this indefinable factor exercises a great influence on conception and interpretation. It is much more wonderful than even the march of events, or of fate itself. Everybody knows what attitude (stimmung) is. Everybody has suffered from it, everybody has made some use of it, but nobody can altogether define it. According to Fischer, attitude consists in the compounded feelings of all the inner conditions and changes of the organism,

[1] Marie Borst: Recherches experimentales sur l'<e'>ducation et la fidelit<e'> du temoignage. Archives de Psychologie. Geneva. Vol. III. no. 11.

<p 378> expressed in consciousness. This would make attitude a sort of vital feeling, the resultant of the now favorable, now unfavorable functioning of our organs. The description is, however, not unexceptionable, inasmuch as single, apparently insignificant influences upon our senses may create or alter our attitudes for a long time without revealing its effect on any organ or its integration with the other mental states. I know how merely good or bad weather determines attitude, how it may be helped immediately by a good cigar, and how often we may pass a day, joyous or dejected, only to discover that the cause is a good or a bad dream of the foregoing night. Especially instructive in this regard was a little experience of mine during an official journey. The trouble which brought me out was an ordinary brawl between young peasants, one of whom was badly cut up and was to be examined. Half−way over, we had to wait at a wayside inn where I expected a relieving gendarme. A quarter of an hour after the stop, when we renewed the journey, I found myself overcome by unspeakable sadness, and this very customary brawl seemed to me especially umpleasant. I sympathized with the wounded boy, his parents, his opponents, all strangers to me, and I bewrayed the rawness of mankind, its love for liquor, etc. This attitude was so striking that I began to seek its cause. I found it, first of all, in the dreary region,−−then in the cup of hot coffee that I had drunk in the restaurant, which might possibly have been poisonous;−−finally, it occurred to me that the hoof−beats of the horses were tuned to a very saddening minor chord. The coachman in his hurry had forgotten to take bells with him, and in order to avoid violating police regulations he had borrowed at the inn another peal, and my sad state dated from the moment I heard it. I banished the sound and immediately I found myself enjoying the pretty scenery.

I am convinced that if I had been called to testify in my sad state, I would have told the story otherwise than normally. The influence of music upon attitude is very well known. The unknown influence of external conditions also makes a difference on attitude. ``If you are absorbed in thought," says Fechner, ``you notice neither sunshine nor the green of the meadows, etc., and still you are in a quite different emotional condition from that which would possess you in a dark room."

The attitude we call indifference is of particular import. It appears, especially, when the ego, because of powerful impressions, is concerned with itself; pain, sadness, important work, reflection, <p 379> disease, etc. In this condition we depreciate or undervalue the significance of everything that occurs about us. Everything is brought into relation to our personal, immediate condition, and is from the point of view of our egoism, more or less indifferent. It does not matter whether this attitude of indifference occurs at the time of perception or at the time of restatement during the examination. In either case, the fact is robbed of its hardness, its significance, and its importance; what was white or black, is described as gray.

There is another and similar attitude which is distinguished by the fact that we are never quite aware of it but are much subject to it. According to Lipps[1] and Lotze,[2] there is to be observed in neurotic attitudes a not rare and complete indifference to feeling, and in consciousness an essential lack of feeling−tone in perception. Our existence, our own being, seems to us, then, to be a foreign thing, having little concern with us−−a story we need not earnestly consider. That in such condition little attention is paid to what is going on around us seems clear enough. The experiences are shadowy and superficial; they are indifferent and are represented as such only. This condition is very dangerous in the law court, because, where a conscientious witness will tell us that, e. g., at the time of the observation or the examination he was sick or troubled, and therefore was incorrect, a person utterly detached in the way described does not tell the judge of his condition, probably because he does not know anything about it.

There are certain closely−related mental and physical situations which lead to quite a different view. Those who are suffering physically, those who have deeply wounded feelings, and those who have been reduced by worry, are examined in the same way as normal people, yet they need to be measured by quite a different standard. Again, we are sometimes likely to suppose great passions that have long since passed their period, to be as influential as they were in their prime. We know that love and hate disappear in the distance, and that love long dead and a long−deferred hatred tend to express themselves as a feeling of mildness and forgiveness which is pretty much the same in spite of its diverse sources. If the examiner knows that a great passion, whether of hate or of love, exists, he thinks he is fooled when he finds a full, calm and objective judgment instead of it. It seems impossible to him, and he either does not believe the probably accurate witness, or colors his testimony with that knowledge.

[1] T. Lipps: Die Grundtatsachen des Seelenlebens. Bonn 1883

[2] R. H. Lotze: Medizinische Psychologie. Leipzig 1882.

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Bodily conditions are still more remarkable in effecting differences in point of view. Here no sense−illusion is presented since no change occurs in sense−perception; the changes are such that arise after the perception, during the process of judgment and interpretation. We might like an idea when lying down that displeases us when we stand up. Examination shows that this attitude varies with the difference in the quantity of blood in the brain in these two positions, and this fact may explain a whole series of phenomena. First of all, it is related to plan−making and the execution of plans. Everybody knows how, while lying in bed, a great many plans occur that seem good. The moment you get up, new considerations arise, and the half−adopted plan is progressively abandoned. Now this does not mean anything so long as nothing was undertaken in the first situation which might be binding for the resolution then made. For example, when two, lying in bed, have made a definite plan, each is later ashamed before the other to withdraw from it. So we often hear from

criminals that they were sorry about certain plans, but since they were once resolved upon, they were carried out. Numbers of such phenomena, many of them quite unbelievable in appearance, may be retroduced to similar sources.

A like thing occurs when a witness, e. g., reflects about some event while he is in bed. When he thinks of it again he is convinced, perhaps, that the matter really occurred in quite another way than he had newly supposed it to. Now he may convince himself that the time at which he made the reflections was nearer the event, and hence, those reflections must have been the more correct ones−− in that case he sticks to his first story, although that might have been incorrect. Helmholtz[1] has pointed to something similar: ``The colors of a landscape appear to be much more living and definite when they are looked at obliquely, or when they are looked at with the head upside down, than when they are looked at with the head in its ordinary position. With the head upside down we try correctly to judge objects and know that, e. g., green meadows, at a certain distance, have a rather altered coloration. We become used to that fact, discount the change and identify the green of distant objects with the shade of green belonging to near objects. Besides, we see the landscape from the new position as a flat image, and incidentally we see clouds in right perspective and the landscape flat, like clouds when we see them in the ordinary way." Of course, everybody knows this. And of course, in a criminal case such considerations will

[1] Handbuch der physiologischen Optik. Leipzig 1865.

<p 381> hardly ever play any r<o^>le. But, on the other hand, it is also a matter of course that the reason for these differences might likewise be the reason for a great many others not yet discovered, and yet of great significance to criminalists.

Such is the situation with regard to comparison. Schiel laid much emphasis on the fact that two lines of unequal length seem equal when they diverge, although their difference is recognized immediately if they are parallel, close together, and start from the same level. He says that the situation is similar in all comparison. If things may be juxtaposed they can be compared; if not, the comparison is bound to be bad. There is no question of illusion here, merely of convenience of manipulation. Juxtaposition is frequently important, not for the practical convenience of comparison, but because we must know whether the witness has discovered the right juxtaposition. Only if he has, can his comparison have been good. To discover whether he has, requires careful examination.

Conception and interpretation are considerably dependent on the interest which is brought to the object examined. There is a story of a child's memory of an old man, which was not a memory of the _*whole_ man, but only of a green sleeve and a wrinkled hand presenting a cake of chocolate. The child was interested only in the chocolate, and hence, understood it and its nearest environment −−the hand and the sleeve. We may easily observe similar cases. In some great brawl the witness may have seen only what was happening to his brother. The numismatist may have observed only a bracelet with a rare coin in a heap of stolen valuables. In a long anarchistic speech the witness may have heard only what threatened his own welfare. And so on. The very thing looks different if, for whatever reason, it is uninteresting or intensely interesting. A color is quite different when it is in fashion, a flower different when we know it to be artificial, the sun is brighter at home, and home−grown fruit tastes better. But there is still another group of specific influences on our conceptions and interpretations, the examples of which have been increasing unbrokenly. One of these is the variety in the significance of words. Words have become symbols of concepts, and simple words have come to mean involved mathematical and philosophical ideas. It is conceivable that two men may connote quite different things by the word ``symbol." And even in thinking and construing, in making use of perceived facts, different conceptions may arise through presenting the fact to another with symbols, that to him, signify different things. The <p 382> difference may perhaps not be great, but when it is taken in connection with the associations and suggestions of the word used, small mistakes multiply and the result is quite different from what it might have been if another meaning had been the starting−point. The use of foreign words, in a sense different from that used by us, may lead us far astray. It must be borne in mind that the meaning of the foreign

word frequently does not coincide with the sense it has in the dictionary. Hence, it is dangerous in adducing evidence to use foreign expressions when it is important to adhere strictly to a single meaning. Taine says, correctly: ``Love and amour, girl and jeune fille, song and chanson, are not identical although they are substituted for one another." It is, moreover, pointed out that children, especially, are glad to substitute and alter ideas for which one word stands, so that they expand or contract its meaning haphazard. Bow−wow may first mean a dog, then a horse, then all animals, and a child who was once shown a fir tree in the forest said it wasn't a fir tree, for fir trees come only at Christmas.

This process is not confined to children. At one time or another we hear a word. As soon as we hear it we connect it with an idea. This connection will rarely be correct, largely because we have heard the word for the first time. Later, we get our idea from events in which this word occurs, of course, in connection with the object we instantaneously understand the word to mean. In time we learn another word, and word and meaning have changed, correctly or incorrectly. A comparison of these changes in individuals would show how easy both approximations and diversifications in meaning are. It must follow that any number of misunderstandings can develop, and many an alteration in the conception of justice and decency, considered through a long period, may become very significant in indicating the changes in the meaning of words. Many a time, if we bear thoroughly in mind the mere changes in the meaning of the word standing for a doubtful fact, we put ourselves in possession of the history of morals. Even the most important quarrels would lapse if the quarreling persons could get emotionally at the intent of their opponent's words.

In this connection questions of honor offer a broad field of examples. It is well known that German is rich in words that show personal dislikes, and also, that the greater portion of these words are harmless in themselves. But one man understands this, the other that, when he hears the words, and finally, German is in the curious position of being the cause of the largest number of attacks on honor <p 383> and of cases of slander in the world. Where the Frenchman laughs and becomes witty, the German grows sullen, insulting, and looks for trouble. The French call sensitiveness to insignificant and worthless things, the German way of quarreling (faire querelle d'allemand). Many a slander case in court is easily settled by showing people the value of the word. Many who complained that they were called a creature, a person, etc., went away satisfied as soon as the whole meaning of the words had been explained to them.

In conclusion, just a word concerning the influence of time on conception. Not the length of past time, but the value of the time− span is what is important in determining an event. According to Herbart, there is a form of temporal repetition, and time is the form of repetition. If he is right it is inevitable that time, fast−moving or slow−moving, must influence the conception of events. It is well−known that monotony in the run of time makes it seem slow, while time full of events goes swiftly, but appears long in memory, because a large number of points have to be thought through. M<u:>nsterberg shows that we have to stop at every separate point, and so time seems, in memory, longer. But this is not universally valid. Aristotle had already pointed out that a familiar road appears to be shorter than an unfamiliar one, and this is contradictory to the first proposition. So, a series of days flies away if we spend them quietly and calmly in vacation in the country. Their swiftness is surprising. Then when something of importance occurs in our life and it is directly succeeded by a calm, eventless period, this seems very long in memory, although it should have seemed long when it occurred, and short in the past. These and similar phenomena are quite unexplained, and all that can be said after numerous experiments is, that we conceive short times as long, and long times as short. Now, we may add the remarkable fact that most people have no idea of the duration of very small times, especially of the minute. Ask any individual to sit absolutely quiet, without counting or doing anything else, and to indicate the passing of each minute up to five. He will say that the five minutes have passed at the end of never more than a minute and a half. So witnesses in estimating time will make mistakes also, and these mistakes, and other nonsense, are written into the protocols.

There are two means of correction. Either have the witness determine the time in terms of some familiar form, i. e., a paternoster, etc., or give him the watch and let him observe the second hand. In the latter case he will assert that his ten, or his five, or <p 384> his twenty minutes were, at most, no more than a half or a whole

minute.

The problem of time is still more difficult when the examination has to be made with regard to the estimation of still longer periods−− weeks, months, or years. There is no means of making any test. The only thing that experience definitely shows is, that the certainty of such estimates depends on their being fixed by distinct events. If anybody says that event A occurred four or five days before event B, we may believe him if, e. g., he adds, ``For when A occurred we began to cut corn, and when B occurred we harvested it. And between these two events there were four or five days." If he can not adduce similar judgments, we must never depend upon him, for things may have occurred which have so influenced his conception of time that he judges altogether falsely.

It often happens in such cases that defective estimates, made in the course of lengthy explanations, suddenly become points of reference, and then, if wrong, are the cause of mistakes. Suppose that a witness once said that an event occurred four years ago. Much later an estimation of the time is undertaken which shows that the hasty statement sets the event in 1893. And then all the most important conclusions are merely argued from that. It is best, as is customary in such cases, to test the uncertainty and incorrectness of these estimates of time on oneself. It may be assumed that the witness, in the case in question, is likely to have made a better estimate, but it may equally be assumed that he has not done so. In short, the conception of periods of time can not be dealt with too cautiously.

Section 84. (e) Nature and Nurture.

Schopenhauer was the first to classify people according to nature and nurture. Just where he first used the categories I do not know, but I know that he is responsible for them. ``Nature" is physical and mental character and disposition, taken most broadly; ``nurture" is bringing up, environment, studies, scholarship, and experience, also in the broadest sense of those words. Both together present what a man is, what he is able to do, what he wants to do. A classification, then, according to nature and nurture is a classification according to essence and character. The influence of a man's nature on his face, we know, or try to know, but what criminal relationships his nurture may develop for us, we are altogether ignorant of. There are all sorts of intermediaries, connections and <p 385> differences between what the goddess of civilization finds to prize, and what can be justified only by a return to simplicity and nature.

Section 85. I. *The Influence of Nurture*.

Criminologically the influence of nurture on mankind is important if it can explain the development of morality, honorableness, and love of truth. The criminalist has to study relations, actions, and assertions, to value and to compare them when they are differentiable only in terms of the nurture of those who are responsible for them. The most instructive works on this problem are those of Tarde,[1] and Oelzelt−Newin.[2] Among the older writers Leibnitz had already said, ``If you leave education to me I'll change Europe in a century." Descartes, Locke, Helvetius assign to nurture the highest possible value while Carlyle, e. g., insists that civilization is a cloak in which wild human nature may eternally burn with hellish fire. For moderns it is a half−way house. Ribot says that training has least effect at the two extremes of humanity−−little and transitively on the idiot, much on the average man, not at all on the genius. I might add that the circle of idiots and geniuses must be made extremely large, for average people are very few in number, and the increase in intellectual training has made no statistical difference on the curve of crime. This is one of the conclusions arrived at by Adolf Wagner[3] which corroborates the experience of practicing lawyers and we who have had, during the growth of popular education, the opportunity to make observations from the criminalistic standpoint, know nothing favorable to its influence. If the general assertion is true that increased national education has reduced brawling, damages to property, etc., and has increased swindling, misappropriations, etc., we have made a great mistake. For the psychological estimation of a criminal, the crime itself is not definitive; there is always the question as to the damage this individual has done his own nature with his deed. If, then, a peasant lad hits his neighbor with the leg of a chair or destroys fences, or

perhaps a whole village, he may still be the most honorable of youths, and later grow up into a universally respected man. Many of the best and most useful village mayors have been guilty in their youth of brawls, damages to property, resistance to authority, and similar things.

[1] G. Tarde: La Philosophie P<e'>nale. Lyon 1590 La Criminalit<e'> Compar<e'>e 1886. Les Lois de l'Imitation. 1890. Psych. Economique. 1902

[2] Kosmodicee. Leipzig and Vienna 1897.

[3] A. Wagner: Statistisch−anthropologische Untersuchung. Hamburg 1864.

<p 386> But if a man has once swindled or killed anybody, he has lost his honor, and, as a rule, remains a scoundrel for the rest of his life. If for criminals of the first kind we substitute the latter type we get a very bad outlook.

Individuals yield similar experiences. The most important characteristic of a somewhat cultivated man who not only is able to read and to write, but makes some use of his knowledge, is a loudly− expressed discontent with his existence. If he once has acquired the desire to read, the little time he has is not sufficient to satisfy it, and when he has more time he is always compelled to lay aside his volume of poetry to feed the pigs or to clean the stables. He learns, moreover, of a number of needs which he can not satisfy but which books have instilled in him, and finally, he seeks illegal means, as we criminalists know, for their satisfaction.

In many countries the law of such cases considers extenuating circumstances and defective bringing−up, but it has never yet occurred to a single criminalist that people might be likely to commit crime because they could not read or write. Nevertheless, we are frequently in touch with an old peasant as witness who gives the impression of absolute integrity, reliability, and wisdom, so much so that it is gain for anybody to talk to him. But though the black art of reading and writing has been foreign to him through the whole of his life, nobody will have any accusation to make against him about defective bringing−up.

The exhibition of unattainable goods to the mass of mankind is a question of conscience. We must, of course, assume that deficiency in education is not in itself a reason for doubting the witness, or for holding an individual inclined to crime. The mistakes in bringing−up like spoiling, rigor, neglect, and their consequences, laziness, deceit, and larceny, have a sufficiently evil outcome. And how far these are at fault, and how far the nature of the individual himself, can be determined only in each concrete case by itself. It will not occur to anybody to wish for a return to savagery and anarchy because of the low value we set on the training of the mind. There is still the business of moral training, and its importance can not be overestimated. Considering the subject generally, we may say that the aim of education is the capacity of sympathizing with the feeling, understanding, and willing of other minds. This might be supplemented, perhaps, also with the limitation that the sympathy must be correct, profound, and implicative, for external, approximate, or inverted sympathy will obviously not do. The servant girl knows <p 387> concerning her master only his manner of quarreling and his manner of spitting but is absolutely unaffected by, and strange to his inner life. The darker aspects of culture and civilization are most obvious in the external contacts of mankind.

When we begin to count an intelligent sympathy, it must follow that the sympathy is possible only with regard to commonly conceivable matters; that we must fundamentally exclude the essential inward construction of the mind and the field of scientific morality. Hence we have left only religion, which is the working morality of the populace.

According to Goethe, the great fundamental conflict of history is the conflict of belief with doubt. A discussion of this conflict is unnecessary here. It is mentioned only by way of indicating that the sole training on which the criminalist may rely is that of real religion. A really religious person is a reliable witness, and when he is behind the bar he permits at least the assumption that he is innocent. Of course it is difficult to

determine whether he is genuinely religious or not, but if genuine religion can be established we have a safe starting point. Various authors have discussed the influence of education, *pro* and *con*. Statistically, it is shown that in Russia, only 10% of the population can read and write, and still of 36,868 condemned persons, no fewer than 26,944 were literate. In the seventies the percentage of criminals in Scotland was divided as follows, 21% absolutely illiterate, 52.7 half educated; 26.3% well educated.

The religious statistics are altogether worthless. A part of them have nothing to do with religion, e. g., the criminality of Jews. One part is worthless because it deals only with the criminality of baptized Protestants or Catholics, and the final section, which might be of great interest, i. e., the criminality of believers and unbelievers, is indeterminable. Statistics say that in the country *A* in the year *n* there were punished x% Protestants, y% Catholics, etc. Of what use is the statement? Both among the x and the y percentages there were many absolute unbelievers, and it is indifferent whether they were Protestant or Catholic unbelievers. It would be interesting to know what percentage of the Catholics and of the Protestants are really faithful, for if we rightly assume that a true believer rarely commits a crime, we should be able to say which religion from the view point of the criminalist should be encouraged. The one which counts the greater percentage of believers, of course, but we shall never know which one that is. The numbers of the <p 388> ``Protestant'' criminals, and those of the ``Catholics,'' can not help us in the least in this matter.

Section 86. (2) _The View, of the Uneducated_.

``To discourse is nature, to assimilate discourse as it is given, is culture.'' With this statement, Goethe has shown where the deficiencies in culture begin, and observation verifies the fact that the uncultured person is unable to accept what is told him as it is told him. This does not mean that uncultured people are unable to remember statements as they are made, but that they are unable to assimilate any perception in its integrity and to reproduce it in its natural simplicity. This is the alpha and the omega of every thing observable in the examination of simple people. Various thinkers in different fields have noted this fact. Mill, e. g., observes that the inability to distinguish between perception and inference is most obvious in the attempt of some ignorant person to describe a natural phenomenon. Douglas Stewart notices that the village apothecary will rarely describe the simplest case without immediately making use of a terminology in which every word is a theory. The simple and true presentation of the phenomenon will reveal at once whether the mind is able to give an accurate interpretation of nature. This suggests why we are frequently engaged in some much−involved process of description of a fact, in itself simple. It has been presented to us in this complicated fashion because our informants did not know how to speak simply. So Kant: ``The testimony of common people may frequently be intended honestly, but it is not often reliable because the witnesses have not the habit of prolonged attention, and so they mistake what they think themselves for what they hear from others. Hence, even though they take oaths, they can hardly be believed.'' Hume, again, says somewhere in the Essay, that most men are naturally inclined to differentiate their discourse, inasmuch as they see their object from one side only, do not think of the objections, and conceive its corroborative principles with such liveliness that they pay no attention to those which look another way. Now, whoever sees an object from one side only does not see it as it comes to him, and whoever refuses to think of objections, has already subjectively colored his objects and no longer sees them as they are.

In this regard it is interesting to note the tendency of uneducated people to define things. They are not interested in the immediate <p 389> perception, but in its abstract form. The best example of this is the famous barrack−room definition of honor: Honor is that thing belonging to the man who has it. The same fault is committed by anybody who fails to apprehend the _*whole_ as it comes, but perceives only what is most obvious and nearest. Mittermaier has pointed out that the light−minded, accidental witness sees only the nearest characteristics. Again, he says, ``It is a well−known fact that uneducated people attend only to the question that was asked them last.''[1] This fact is important. If a witness is unskilfully asked in one breath whether he murdered A, robbed B, and stole a pear from C, he will probably answer with calmness, ``No, I have not stolen a pear,'' but he pays no attention to the other two portions of the question. This characteristic is frequently made use of by the defense. The lawyers ask some important witness for the prosecution: ``Can

you say that you have seen how the accused entered the room, looked around, approached the closet, and then drew the watch toward himself?" The uneducated witness then says dryly, ``No, I can not say that," although he has seen everything except the concealment of the watch. He denies the whole thing solely because he has been able to attend to the last portion of the question only. It is very easy to look out for these characteristics, by simply not permitting a number of questions in one, by having questions put in the simplest and clearest possible form. Simple questions are thankfully received, and get better answers than long, or tricky ones.

For the same reason that prevents uneducated people from ever seeing a thing as it comes to them, their love of justice depends on their eagerness to avoid becoming themselves subjects of injustice. Hence, weak people can never be honest, and most uneducated people understand by duty that which _*others_ are to do. Duty is presented as required of all men, but it is more comfortable to require it of others, so that it is understood as only so required. It may be due to the fact that education develops quiet imperturbability, and that this is conducive to correcter vision and more adequate objectivity in both events and obligations.

There is another series of processes which are characteristic of the point of view of the uneducated. There is, e. g., a peculiar recurring mental process with regard to the careful use of life preservers, fire extinguishers, and other means of escape, which are to be used _*hastily_ in case of need. They are found always carefully

[1] Die Lehre vom Beweise. Darmstadt 1843.

<p 390> chained up, or hidden in closets by the ignorant. This is possible only if the idea of protecting oneself against sudden need does not make itself effective as such, but is forced out of the mind by the desire to protect oneself against theft.

Why must the uneducated carefully feel everything that is shown them, or that they otherwise find to be new? Children even smell such things, while educated people are satisfied with looking at them. The request in public places, ``Do not touch," has very good reason. I believe that the level of culture of an individual may be determined without much mistake, by his inclination to touch or not to touch some new object presented him. The reason for this desire can hardly be established but it is certainly the wish of the uneducated to study the object more fundamentally and hence, to bring into play other senses than that of sight. It may be that the educated man sees more because he is better trained in careful observation, so that the uneducated man is really compelled to do more than merely to look. On the other hand, it may be that the uneducated man here again fails to perceive the object as it is, and when it appears to him as object A, or is indicated as that object, he is inclined to disbelieve, and must convince himself by careful feeling that it is really an A.[1] It may be, again, that ``trains of association" can help to explain the matter.

That an understanding of the character of an object is dependent on training and educated observation has been verified many times, incidentally, also by the fact that the uneducated find it difficult to get on with representations. Now this can not be accounted for by only their defective practice. The old, but instructive story of the peasant−woman who asked her son what he was reading, the black or the white, repeats itself whenever uneducated people are shown images, photographs, etc. For a long time I had not noticed that they see the background as the thing to be attended to. When, for example, you show an uneducated man a bust photograph, it may happen that he perceives the upper surroundings of shoulder and head as the lower contours of the background which is to indicate some fact, and if these contours happen to be, e. g., those of a dog, the man sees ``a white dog." This is more frequent than we think, and hence, we must pay little attention to failures to recognize people in photographs.[2] One more story by way of example−− that of a photographer who snapped a dozen parading young drag−

[1] Cf H. Gross's Archiv, II, 140, III, 350; VII, 155.

[2] Cf H. Gross's Archiv, VII, 160.

<p 391> oons, and had gotten the addresses, but not the street numbers of their parents. He sent for that reason to the twelve parents, for inspection, a photograph each with the notice that if some mistake had occurred he would rectify it. But not a parent complained of the photographer's failure to have sent them the pictures of their own children. Each had received a soldier, and appeared to be quite satisfied with the correctness of his image. Hence it follows again, that denials of photographic identity by the uneducated are altogether without value.

In another direction images have a peculiar significance for children and ignorant people, because they show ineradicable ideas, particularly with regard to size. Nobody recalls any book so vividly as his first picture book and its contents. We remember it even though we are convinced that the people who made our picture book were quite mistaken. Now, as it frequently happens that the sizes are incorrectly reproduced, as when, e. g., a horse and a reindeer occur in the same picture, and the latter seems bigger than the former, the reindeer appears in imagination always bigger. It does not matter if we learn later how big a reindeer is, or how many times we have seen one, we still find the animal ``altogether too small, it must be bigger than a horse.'' Educated adults do not make this mistake, but the uneducated do, and many false statements depend on ideas derived from pictures. If their derivation is known we may discover the source of the mistake, but if the mistake occurred unconsciously, then we have to combine the circumstances and study further to find the reason.

Finally, the general influence of the failure of ignorant people to see things as they are, upon their feeling−tone is shown in two characteristic stories. Bulwer tells of a servant whose master beat him and who was instigated to seek protection in court. He refused indignantly inasmuch as his master was too noble a person to be subject to law. And Gutberlet tells the story of the director of police, Serafini, in Ravenna, who had heard that a notorious murderer had threatened to shoot him. Serafini had the assassin brought to him, gave him a loaded pistol and invited him to shoot. The murderer grew pale and Serafini boxed his ears and kicked him out.

Section 87. (3) _One−Sided Education_.

Just a few words about the considerable danger in the testimony presented by persons of one−sided education. Altogether uneducated <p 392> people warn us in their own way, but people who have a certain amount of training, in at least one direction, impress us to such a degree that we assume them to be otherwise also educated and thus get involved in mistakes.

It is hard to say correctly what constitutes an educated man. We demand, of course, a certain amount of knowledge, but we do not know the magnitude of that amount of knowledge, and still less its subject matter. It is remarkable that our time, which has devoted itself more than all others to natural science, does not include knowledge of such science in its concept of the educated man. Some ignorance of history, or of the classics, or even of some modern novels, failure to visit the theaters and the picture exhibitions, neglect of French and English, etc., classifies a man at once as lacking essential ``culture.'' But if he knows these things, and at the same time exhibits in the most na<i:>ve way an incredible ignorance of zo<o:>logy, botany, physics, chemistry, astronomy, etc., he still remains ``an educated man.'' The contradiction is inexplicable, but it exists, and because of it, nobody can definitely say what is meant by a one−sided education. The extent of one−sidedness is, however, illustrated by many examples. We mention only two. Linnaeus' own drawings with remarks by Afzelius show that in spite of his extraordinary knowledge of botany and his wonderful memory, he did not know a foreign language. He was in Holland for three years, and failed to understand even the Dutch language, so very similar to his own. It is told of Sir Humphrey Davy, that during the visit to the Louvre, in Paris, he admired the extraordinary carving of the frames of the pictures, and the splendid material of which the most famous of the Greek sculptures were made.

Now, how are we to meet people of this kind when they are on the witness stand? They offer no difficulty when they tell us that they know nothing about the subject in question. Suppose we have to interrogate a

philologist on a subject which requires only that amount of knowledge of natural science which may be presupposed in any generally educated individual. If he declares honestly that he has forgotten everything he had learned about the matter in college, he is easily dealt with in the same way as ``uneducated people.'' If, however, he is not honest enough immediately to confess his ignorance, nothing else will do except to make him see his position by means of questions, and even then to proceed carefully. It would be conscienceless to try to spare this man while another is shown up. <p 393>

The same attitude must be taken toward autodidacts and dilettantes who always measure the value of their knowledge by the amount of effort they had to use in getting it, and hence, always overestimate their acquirements. It is to be observed that they assert no more than their information permits them to, and their personality is easily discoverable by the manner in which they present their knowledge. The self−taught man is in the end only the parvenu of knowledge, and just as the parvenu, as such, rarely conceals his character, so the autodidact rarely conceals his character.

There is an additional quality of which we must beware−−that is the tendency of experts to take pride in some different, incidental, and less important little thing than their own subject. Frederick the Great with his miserable flute−playing is an example. Such people may easily cause mistakes. The knowledge of their attainment in one field causes us involuntarily to respect their assertions. Now, if their assertions deal with their hobbies many a silly thing is taken at its face value, and that value is counterfeit.

Section 88. (4) *Inclination.*

Whether a scientific characterization of inclination is possible, whether the limits of this concept can be determined, and whether it is the result of nature, culture, or both together, are questions which can receive no certain answer. We shall not here speak of individual forms of inclination, i. e., to drink, to gamble, to steal, etc., for these are comparatively the most difficult of our modern problems. We shall consider them generally and briefly. Trees and men, says the old proverb, fall as they are inclined. Now, if we examine the inclination of the countless fallen ones we meet in our calling we shall have fewer difficulties in qualifying and judging their crimes. As a rule, it is difficult to separate inclination, on the one hand, from opportunity, need, desire, on the other. The capacity for evil is a seduction to its performance, as Alfieri says somewhere, and this idea clarifies the status of inclination. The ability may often be the opportune cause of the development of an evil tendency, and frequent success may lead to the assumption of the presence of an inclination.

Maudsley points out that feelings that have once been present leave their unconscious residue which modify the total character and even reconstruct the moral sense as a resultant of particular experiences. That an inclination or something similar thereto might <p 394> develop in this way is certain, for we may even inherit an inclination, −−but only under certain conditions. This fact is substantiated by the characteristics of vagabonds. It may, perhaps, be said that the enforcement of the laws of vagabondage belongs to the most interesting of the pyschological researches of the criminal judge. Even the difference between the real bona fide tramp, and the poor devil who, in spite of all his effort can get no work, requires the consideration of a good deal of psychological fact. There is no need of description in such cases; the difference must be determined by the study of thousands of details. Just as interesting are the results of procedure, especially certain statistical results. The course of long practice will show that among real tramps there is hardly ever an individual whose calling requires very hard or difficult work. Peasants, smiths, well−diggers, mountaineers, are rarely tramps. The largest numbers have trades which demand no real hard work and whose business is not uniform. Bakers, millers, waiters are hence more numerous. The first have comparatively even distribution of work and rest; the latter sometimes have much, sometimes little to do, without any possible evenness of distribution. Now, we should make a mistake if we inferred that because the former had hard work, and an equivalent distribution of work and rest, they do not become tramps, while the latter, lacking these, do become tramps. In truth, the former have naturally a need and inclination for hard work and uniform living, have, therefore, no inclination to tramping, and have for that reason chosen their difficult calling. The latter, on the other hand, felt an inclination for lighter, more irregular work, i. e., were already possessed of an inclination

for vagabondage, and had, hence, chosen the business of baking, grinding, or waiting. The real tramp, therefore, is not a criminal. Vagabondage is no doubt the kindergarten of criminals, because there are many criminals among tramps, but the true vagabond is one only because of his inclination for tramping. He is a degenerate.

Possibly a similar account of other types may be rendered. If it is attained by means of a statistic developed on fundamental psychological principles, it would give us ground for a number of important assumptions. It would help us to make parallel inferences, inasmuch as it would permit us to determine the fundamental inclination of the person by considering his calling, his way of approaching his work, his environment, his choice of a wife, his preferred pleasures, etc. And then we should be able to connect this inclination with the deed in question. It is difficult to fix upon the <p 395> relation between inclination and character, and the agreement will be only general when a man's character is called all those things to which he is naturally, or by education, inclined. But it is certain that a good or bad character exists only then when its maxims of desire and action express themselves in fact. The emphasis must be on the fact; what is factual may be discovered, and these discoveries may be of use.

Section 89. (5) *Other Differences*.

The ancient classification of individuals according to temperaments is of little use. There were four of them, called humors, and a series of characteristics was assigned to each, but not one of them had all of its characteristics at once. Hence temperaments determined according to these four categories do not really exist, and the categorical distinction can have no practical value. If, however, we make use of the significant general meaning of temperament, the apparatus of circumstance which is connected with this distinction becomes superfluous. If you call every active person choleric, every truculent one sanguine, every thoughtful one phlegmatic, and every sad one melancholy, you simply add a technical expression to a few of the thousands of adjectives that describe these things. These four forms are not the only ones there are. Apart from countless medial and transitional forms, there are still large numbers that do not fit in any one of these categories. Moreover, temperament alters with age, health, experience, and other accidents, so that the differentiation is not even justified by the constancy of the phenomenon. Nevertheless, it is to some degree significant because any form of it indicates a certain authority, and because each one of these four categories serves to connect a series of phenomena and assumes this connection to be indubitable, although there is absolutely no necessity for it. When Machiavelli says that the world belongs to the phlegmatic, he certainly did not have in mind that complex of phenomena which are habitually understood as the characteristics of the phlegmatic humor. He wanted simply to say that extremes of conduct lead to as little in the daily life as in politics; that everything must be reflected upon and repeatedly tested before its realization is attempted; that only then can progress, even if slow, be made. If he had said, the world belongs to the cautious or reflective person, we should not have found his meaning to be different.

When we seek clearly to understand the nature and culture of <p 396> an individual, an investigation into his temperament does not help us in the least. Let us consider then, some other characteristic on which is based the judgment of individuals. The proverb says that laughter betrays a man. If in the theater, you know the subject of laughter, the manner of laughter, and the point at which laughter first occurred, you know where the most educated and the least educated people are. Schopenhauer says that the intelligent man finds everything funny, the logical man nothing; and according to Erdmann (in <U:>ber die Dummheit), the distressing or laughable characteristics of an object, shows not its nature, but the nature of the observer. It would seem that the criminalist might save himself much work by observing the laughter of his subjects. The embarrassed, foolish snickering of the badly observing witness; the painful smile of the innocent prisoner, or the convicted penitent; the cruel laughter of the witness glad of the damage he has done; the evil laughter of the condemning accomplice; the happy, weak laughter of the innocent who has adduced evidence of his innocence, and the countless other forms of laughter, all these vary so much with the character of the laugher, and are so significant, that hardly anything compares with them in value. When you remember, moreover, that concealment during laughter is not easy, at least at the moment when the laughter ceases, you see how very

important laughter may be in determining a case.

Of equal importance with laughter are certain changes which may occur in people during a very short time. If we observe in the course of the daily life, that people, without any apparent reason, so change that we can hardly recognize them, the change becomes ten times more intense under the influence of guilt or even of imprisonment. Somebody said that isolation has revealed the greatest men, the greatest fools, and the greatest criminals. What, then, might be the influence of compulsory isolation, i. e., of imprisonment! We fortunately do not live in a time which permits imprisonment for months and years in even the simplest cases, but under certain circumstances even a few days' imprisonment may completely alter a person. Embitterment or wildness may exhibit itself, just as sorrow and softness, during the stay under arrest. And hence, the criminalist who does not frequently see and deal with his subjects does not perform his duty. I do not mean, of course, that he should see them for the purpose of getting a confession out of an attack of morbidity; I mean only, that this is the one way of getting a just and correct notion of the case. Every criminalist of experience will <p 397> grant that he sees the event, particularly the motives of the criminal, otherwise after the first examination than after the later ones, and that his later notions are mainly the more correct ones. If we set aside the unfortunate cases in which the individual held for examination is instructed by his prison−mates and becomes still more spoiled, I might permit myself the assertion that imprisonment tends to show the individual more correctly as he is; that the strange surroundings, the change from his former position, the opportunity to think over his situation may, if there are no opposing influences, help the criminalist a great deal, and this fact is confirmed in the superior results of later to earlier examinations.

In addition, the bodily condition and the health of the prisoner change almost always. The new mode of life, the different food and surroundings, the lack of movement, the moral effect, work directly on the body, and we must confess, unfortunately, on health. There are, however, cases in which health has been improved by imprisonment, especially the health of people who have led a wild, irregular, drunken life, or such who have had to worry and care too much. But these are exceptions, and as a rule the prisoner's physique suffers a great deal, but fortunately for a short time only. The influence of such effects on the mind is familiar. The bodily misfortune gives a wide opening for complete change in moral nature; health sustains the atheist in darkness. This fact, as mentioned by Bain, may serve to explain the origin of many a confession which has saved an innocent person at the last moment.

Nor must we forget that time−−and for the prisoner, imprisonment is time endowed with power−−effects many an adjustment of extremes. We know that utter evil is as rare as perfect virtue. We have nothing to do with the latter, but we almost as infrequently meet the former. The longer we deal with ``bad men," the more inclined are we to see the very summit of devilment as the result of need and friendlessness, weakness, foolishness, flightiness, and just simple, real, human poorness of spirit. Now, what we find so redistributed in the course of years, we often find crushed together and fallen apart in a short time. Today the prisoner seems to us the most dreadful criminal; in a few days, we have calmed down, have learned to know the case from another side, the criminal has shown his real nature more clearly, and our whole notion of him has changed.

I frequently think of the simple story of Charles XII's sudden entry into Dresden. The city fathers immediately called an ex− <p 398> traordinary session for the next day in order to discuss, as the Swedish king supposed, what they should have done the day before. Every examined prisoner does the same thing. When he leaves the court he is already thinking of what he should have said differently, and he repeats his reflections until the next examination. Hence, his frequently almost inexplicable variety of statements, and hence, also, the need of frequent examination.

Finally, there is the fact Mittermaier has pointed to−−the importance of the criminalist's own culture and character. ``If a girl testifies for her lover and against her brother, the question in judgment arises, which voice is the more powerful? The judge will not easily be able to divorce this standard of judgment from himself and his own view of life." This is a frequent occurrence. You consider a difficult psychological case in all its aspects, and suddenly, without knowing how or why, you have found its solution: ``It must have been so and

not otherwise; he has acted so and so for this reason, etc." A close examination of such a definite inference will convince you that it is due to the pathetic fallacy, i. e., you have so inferred because you would have done so, thought and desired so, under similar circumstances. The commission of the pathetic fallacy is the judge's greatest danger.

Section 90. (6) *Intelligence and Stupidity*.

The three enemies of the criminalist are evil nature, untruth, and stupidity or foolishness. The last is not the least difficult. Nobody is safe from its attacks; it appears as the characteristic of mankind in general, in their prejudices, their preconceptions, their selfishness, and their high−riding nature. The criminalist has to fight it in witnesses, in jurymen, and frequently in the obstinacy, dunder− headedness, and amusing self−conceit of his superiors. It hinders him in the heads of his colleagues and of the defendant, and it is his enemy not least frequently in his own head. The greatest foolishness is to believe that you are not yourself guilty of foolishness. The cleverest people do the most idiotic things. He makes the most progress who keeps in mind the great series of his own stupidities, and tries to learn from them. One can only console oneself with the belief that nobody else is better off, and that every stupidity is a basis for knowledge. The world is such that every foolishness gets somebody to commit it.

Foolishness is an isolated property. It is not related to intelligence as cold to warmth, Cold is the absence of heat, but foolishness <p 399> is not the absence of intelligence. Both are properties that look in the same direction. Hence, it is never possible to speak of intelligence or stupidity by itself. Whoever deals with one deals with the other, but it would be a mistake to conceive them as a developing series at one end of which is intelligence, and at the other, stupidity. The transition is not only frequent, but there are many remarkable cases in which one passes into the other, gets mixed up with it, and covers it. Hence, a thing may often be at one and the same time intelligent and stupid, intelligent in one direction and stupid in another; and it is not incorrect, therefore, to speak of clever stupidities, and of clever deeds that are heartily foolish.

The importance of stupidity is due not only to the fact that it may lead to important consequences, but also to the difficulty of discovering it in certain cases. It is before all things correct, that foolish people often seem to be very wise, and that as a rule, much intercourse alone is able to reveal the complete profundity of a man's foolishness. But in our work we can have little intercourse with the people whom we are to know, and there are, indeed, persons whom we take to be foolish at the first encounter, and who really are so when we know them better. And even when we have learned the kind and degree of a man's foolishness, we have not learned his way of expressing it, and that discovery requires much wisdom. Moreover, an incredible amount of effort, persistence, and slyness is often made use of for the purpose of committing an immense act of foolishness. Every one of us knows of a number of criminal cases that remained unexplained for a long time simply because some one related event could be explained by a stupidity so great as to be unbelievable. Yet the knowledge that such stupidity actually exists could explain many a similar matter, simply and easily. This is especially true with regard to the much discussed ``one great stupidity," which the criminal commits in almost every crime. Assume that such a stupidity is impossible, and the explanation of the case is also impossible. We must never forget that it is exactly the wise who refuse to think of the possibility of foolishness. Just as everything is clean to the cleanly, and everything is philosophic to the philosopher, everything is wise to the wise. Hence, he finds it unintelligible that a thing may be explained from the point of view of pure unreason. His duty therefore, is, to learn as much and as accurately as possible about the nature of foolishness.

There are, perhaps, few books on earth that contain so many clever things as Erdmann's little text ``Concerning Foolishness " <p 400> (<U:>ber die Dummheit). Erdmann starts with small experiences. For example, he once came early to the Hamburg Railway Station and found in the waiting−room one family with many children, from whose conversation he learned that they were going to visit a grandfather in Kyritz. The station filled up, to the increasing fear of the smallest member of the family, a boy. When the station grew quite full he suddenly broke out: ``Look here, what do all these people want of grandfather in Kyritz." The child supposed that because he himself was travelling to Kyritz all other people in the same place could have

had no different intention. This narrowness of the point of view, the generalization of one's own petty standpoint into a rule of conduct for mankind is, according to Erdmann, the essence of foolishness. How far one may go in this process without appearing foolish may be seen from another example. When, in the sixties, a stranger in Paris spoke admiringly of the old trees on a certain avenue, it was the habit of the Parisians to answer, ``Then you also do not agree with Haussmann?" because everybody knew about the attempt by the Parisian prefect, Baron Haussmann, to beautify Paris by killing trees. If, however, the trees in the churchyard of the little village are praised, and the native peasant replies, ``So you know also that our Smith wants to have the trees chopped down," the remark is foolish, because the peasant had no right to assume that the world knows of the intentions of the village mayor.

Now, if you decrease the number of view−points, and narrow the horizon, you reach a point where the circumference of ideas is identical with their center, and this point is the kernel of stupidity, the idiot. Stupidity is the state of mind in which a man judges everything by himself. This again may be best illustrated by a figure of speech. If you go about a room and observe its contents you soon notice how the objects change place and appearance with the change in your point of view. If you look _*only_ through the key−hole, you do not, however, recognize that fact; everything seems equal. The idiot is he whose egoistic eye is the only key−hole through which he looks into the decorated parlor we call the world. Hence, the defective individual, l'homme born<e'>, who has real narrowness of mind, possesses only a small number of ideas and points of view, and hence, his outlook is restricted and narrow. The narrower his outlook, the more foolish the man.

Foolishness and egoism are privileges of the child; we are all born foolish and raw. Only light sharpens our wits, but as the process is very slow, there is not one of us who has not some blunt edges. <p 401> To distinguish objects is to be clever; to confound them, to be foolish. What one first notices in defective minds is the unconditional universality of their remarks. The generalizations of stupid people are then unjustly called exaggerations. Where they say ``always," the clever will say, ``two or three times." The foolish man interrupts his fellow because he presses to the front as the only justified speaker. What is most characteristic of him is his attempt to set his ego in the foreground, ``_*I_ do this always," ``This is one of _*my_ traits," ``_*I_ do this thing in quite another way." Indeed, every high grade of foolishness exhibits a certain amount of force which the fool in question uses to bring his personality forward. If he speaks about reaching the North Pole, he says, ``Of course, I have never been at the North Pole, but I have been at Annotook," and when the subject of conversation is some great invention, he assures us that he has not invented anything, but that he is able to make brooms, and incidentally, he finds fault with the invention, and the more foolish he is, the more fault he finds.

These characteristics must, of course, be kept apart, and foolishness must not be confused with related qualities, although its extent or boundaries must not be fixed too absolutely. Kraus, e. g., distinguishes between the idiot, the fool, the weak−minded, the idea−less, etc., and assigns to each distinguishing character−marks. But as the notions for which these expressions stand vary very much, this classification is hardly justified. A fool in one country is different from a fool in another, an idiot in the South from an idiot in the North, and even when various individuals have to be classified at the same place and at the same time, each appears to be somewhat unique. If, for example, we take Kraus's definitions of the idiot as one who is least concerned with causal relations, who understands them least, and who can not even grasp the concept of causation, we may say the same thing about the weak−minded, the untalented, etc. Kant says, rightly, that inasmuch as fools are commonly puffed−up and deserve to be degraded, the word foolishness must be applied to a ``swell−headed" simpleton, and not to a good and honest simpleton. But Kant is not here distinguishing between foolishness and simplicity, but between pretentiousness and kindly honesty, thus indicating the former as the necessary attribute of foolishness. Another mode of distinction is to observe that forgetfulness is a quality of the simpleton who is defective in attention, but not of the fool who has only a narrow outlook. Whether or not this is true, is hard to say. There is still another differentiation in which foolish− <p 402> ness and simplicity are distinguished by the lack of extent, or the intensity of attention.

It is just as difficult to determine what we mean by na<i:>vet<e'>, and how to distinguish that from

foolishness. That the concepts nowhere coincide is indubitable. The contact appears only where one is uncertain whether a thing is foolish or na<i:>ve. The real fool is never na<i:>ve, for foolishness has a certain laziness of thought which is never a characteristic of na<i:>vet<e'>. The great difficulty of getting at the difference is most evident in the cases of real and artificial na<i:>vet<e'>. Many people make use of the latter with great success. To do so requires the appearance of sufficient foolishness to make the real simpleton believe that he is the cleverer of the pair. If the simpleton believes, the mummer has won the game, but he has not simulated real foolishness; he has simulated na<i:>vet<e'>. Kant defines na<i:>vet<e'> as conduct which pays no attention to the possible judgment of other people. This is not the modern notion of na<i:>vet<e'>, for nowadays we call na<i:>vet<e'> an uncritical attitude toward one's environment, and its importance in our profession is, perhaps, due to the fact that−−pardon me−−many of us practice it. Naturalness, openness of heart, lovable simplicity, openness of mind, and whatever else the efflorescence of na<i:>vet<e'> may be called, are fascinating qualities in children and girls, but they do not become the criminal judge. It is na<i:>ve honestly to accept the most obvious denials of defendant and witness; it is na<i:>ve not to know how the examinees correspond with each other; it is na<i:>ve to permit a criminal to talk thieves' patter with another in your own hearing; it is still more na<i:>ve to speak cordially with a criminal in this patter; it is na<i:>ve not to know the simplest expressions of this patter; and it is most na<i:>ve to believe that the criminal can discover his duty by means of the statutes, their exposition, and explanation; it is na<i:>ve to attempt to impose on a criminal by a bald exhibition of slyness; and it is most na<i:>ve of all not to recognize the na<i:>vet<e'> of the criminal. A criminalist who studies himself will recognize how frequently he was na<i:>ve through ignorance of the importance of apparently insignificant circumstances. ``The greatest wisdom," says La Rochefoucauld, ``consists in knowing the values of things." But it would be a mistake to attempt always to bring out directly that alone which appears to be hidden behind the na<i:>ve moment. The will does not think, but it must turn the attention of the mind to knowledge. It can not will any particular result of knowledge. It can only will that the mind shall investigate without prejudice. <p 403>

The proper use of this good will will consist in trying to find out the quantity of intelligence and stupidity which may be taken for granted in the interlocutor. I have once shown that it is a great mistake to suppose the criminal more foolish than oneself, but that one is not compelled to suppose him to be more intelligent than oneself. Until one can gain more definite knowledge of his nature, it is best to believe him to be just as intelligent as oneself. This will involve a mistake, but rarely a damaging one. Otherwise, one may hit on the correct solution by accident in some cases, and make great mistakes in all others.

Intelligence in the sense of wisdom is the important quality in our interlocutor. The witness helps us with it, and the defendant deceives and eludes us by its means. According to Kant, a man is wise when he has the power of practical judgment. According to D<o:>rner, certain individuals have especial intuitive talents, others have capacity for empirical investigations, and still others for speculative synthesis. In the former, their capacity serves to render the object clearly, to observe it sharply, to analyze it into its elements. In the latter, there is the capacity for the synthesis, for the discovery of far−reaching relationships. Again, we hear that the wise head invents, the acute mind discovers, the deep mind seeks out. The first combines, the second analyzes, the third founds. Wit blends, sharpness clarifies, deepness illuminates. Wit persuades, sharpness instructs, deepness convinces.

In individual cases, a man is completely and suddenly understood, perhaps, in terms of the following proverb: ``There are two kinds of silence, the silence of the fool and the silence of the wise man−− both are clever." Kant says, somewhere, that the witty person is free and pert, the judicious person reflective, and unwilling to draw conclusions. In a certain direction we may be helped, also, by particular evidences. So, when, e. g., Hering[1] says, ``One−sidedness is the mother of virtuosity. The work of the spider is wonderful, but the spider can do nothing else. Man makes a bow and arrow when he can get no prey in his net, the spider goes hungry." This distinguishes mechanical cleverness from conscious wisdom completely. Of the same illuminating character are such salse dicta as: ``The fool never does what he says, the wise man never says what he does." ``You can fool one man, but you can not fool all men." ``Stupidity is natural, wisdom is a product of art." ``To depend on accident is foolishness, to use accident is wisdom." <p 404> ``There are

stupidities which can be committed only by the wise." ``Wisdom is as different from foolishness, as man from monkey." ``Fools speak what wise men think." ``Understanding is deficient, but stupidity never is." etc. These and countless other maxims help us considerably in individual cases, but give us no general characterization of the function of wisdom. We may, therefore, get some sort of pragmatic insight into the wisdom or unwisdom, of an action in the assertion: ``To be wise is to be able to sacrifice an immediate petty advantage to a later and greater advantage." This proposition seems not to have sufficient scope, but on closer examination seems to fit all cases. The wise man lives according to law, and sacrifices the petty advantage of immediate sensual pleasure for the greater advantage of sustained health. He is prudent and sacrifices the immediate petty delights to the advantage of a care− free age. He is cautious in his speculation, and sacrifices momentary, doubtful, and hence, petty successes, to the greater later success of certain earning. He is silent, and sacrifices the petty advantage of appearing for the moment well−informed about all possible matters, to the greater advantage of not getting into trouble on account of this. He commits no punishable deeds, and sacrifices advantages that might be gained for the moment to the later greater advantage of not being punished. So the analysis might be continued, and in each case we should find that there was no wisdom which could not be explained in this way.

[1] <U:>ber das Ged<a:>chtnis etc. Vienna 1876.

The use of our explanatory proposition is possible in all cases which require determining the real or apparent participation of some individual in a crime. If the degree of wisdom a man may be credited with can be determined by means of this analysis, it is not difficult afterwards to test by its use the probability of his having a share in the crime in question.

Finally, cases are again and again observed in which very foolish people−−idiots and lunatics−−either because of anxiety, terror, wounds in the head, or shortly before death, become intelligent for a brief period. It is conceivable that the improvement of mental activity in these cases arises when the defect has depended on the pathological dominance of an inhibitory center, the abnormally intensified activity of which has as its result an inhibition of other important centers (acute, curable dementia, paranoia). A light, transitory, actual increase of mental activity, might, possibly, be explained by the familiar fact that cerebral anemia, in its early stages, is exciting rather than dulling. Theoretically this might <p 405> be connected, perhaps, with the molecular cell−changes which are involved in the disintegration of the brain. The difference between the effects of these two causes will hardly be great, but testimony dependent on this altered character of mental activity will have little reliability. Hallucinations, false memories, melancholic accusations of self, particularly, may also be explained in terms of such excitement. We criminalists have frequently to deal with people in above− named conditions, and when we receive intelligent answers from them we must never set them aside, but must carefully make note of them and estimate them in the light of expert advice.

To this class belongs the interesting phenomenon that we very frequently meet fools who never do anything foolish. It is not true that these are simply misjudged, and only appear to be foolish. They are really foolish but they are helped by certain conditions in every instance of their conduct. To begin with, they are not so foolish as to deceive themselves; they are, therefore, in possession of a certain notion of their own weakness, and do not attempt things which are too much for them. Then, they must have a certain degree of luck in their undertakings. The proverb says that conceit is the force behind the fool, and if these fools apply their conceit to appropriate situations, they succeed. Then again, they sometimes fail to see dangers, and are therefore free from swindles which are dangerous, even to the cleverest persons. ``The fool stumbles across the abyss into which the wise man regularly tumbles," says the proverb again. And if routine may properly be called the surrogate of talent, we must suppose that custom and practice may carry the biggest fool so far as to help him in many cases to success.

According to Esser, the fool thinks in terms of the following proposition: ``Things that are alike in a few points are identical, and things that are unlike in a few points are altogether diverse." If this is true, the fool can fail only when he is drawing inferences of this kind; if, however, none of the important events in his life

involve such inferences, he has no opportunity to exhibit his essential foolishness. The same thing is true of his interests. No fool has a real eagerness for knowledge. He has, instead, curiosity, and this can never be distinguished with certainty from knowledge. Now, if the fool is lucky, he seems to be moving forward, shows himself possessed of interests, and nobody proves that this possession is only idiotic curiosity. The fool must protect himself against one thing−− action. Foolishness in action is rawness−−true rawness is always foolish and can not be mistaken. <p 406>

Here, again, we draw the extraordinary conclusion that we criminalists, as in all other cases, must not take man to be what he seems most of the time, but what he shows himself as, in exceptional cases. The worst man may have done something absolutely good, the greatest liar may today tell the truth, and the simpleton may today act wisely. We are not concerned with man as such; what is important for us is his immediate self−expression. The rest of his nature is a matter of judgment.

Topic 2. ISOLATED INFLUENCES.

Section 91. (a) Habit.

Habit may be of considerable importance in criminal law. We have, first of all, to know how far we ourselves are influenced in our thinking and acting by habit; then it is important, in judging the testimony of witnesses, to know whether and how far the witness behaved according to his habits. For by means of this knowledge we may be able to see the likelihood of many a thing that might have otherwise seemed improbable. Finally, we may be able properly to estimate many an excuse offered by a defendant through considering his habits, especially when we are dealing with events that are supposed to have occurred under stupefaction, absolute intoxication, distraction, etc.[1] Hume, indeed, has assigned to habit the maximum of significance; his whole system depends upon the use of habit as a principle of explanation. He shows that the essence of all our inferences with regard to facts relates to the principle of causation, and the foundation of all our beliefs in causation is experience, while the foundation of inference from experience is habit. As a matter of fact, it is strange how often an obscure event becomes suddenly clear by an inquiry into the possibility of habit as its cause. Even everything we call fashion, custom, presumption, is at bottom nothing more than habit, or explicable by habit. All new fashions in clothes, in usages, etc., are disliked until one becomes habituated to them, and custom and morality must attach themselves to the iron law of habit. What would my grandmother have said of a woman whom she might have seen happily bicycling through the streets! How every German citizen crosses himself when he sees French sea−bathing! And if we had no idea of a ball among the four hundred what should we say if we heard that in the evening men meet half−naked women, embrace them vigorously, pull them <p 407> round, and bob and stamp through the hall with disgusting noise until they must stop, pouring perspiration, gasping for breath? But because we are accustomed to it, we are satisfied with it. To see what influence habit has on our views of this subject, just close your ears tightly at some ball and watch the dancers. As soon as you stop hearing the music you think you are in a lunatic asylum. Indeed, you do not need to select such a really foolish case. Helmholtz suggests looking at a man walking in the distance, through the large end of a telescope. What extraordinary humping and rocking of the body the passer−by exhibits! There are any number of such examples, and if we inquire concerning the permissibility of certain events we simply carry the question of habit into the field of conduct. Hunting harmless animals, vivisection, the execution of back−breaking tricks, ballets, and numerous other things, will seem to us shocking, inconceivable, disgusting, if we are not habituated to them. What here requires thought is the fact that we criminalists often judge situations we do not know. When the peasant, the unskilled laborer, or the craftsman, does anything, we know only superficially the deed's nature and real status. We have, as a rule, no knowledge of the perpetrator's habits, and when we regard some one of his actions as most reprehensible,−−quarrel or insult or maltreatment of his wife or children−−he responds to us with a most astounded expression. He is not habituated to anything else, and we do not teach him a better way by punishing him.

[1] H. Gross's Archiv. II, 140; III, 350; VII, 155; XIII, 161; XIV, 189.

Questions of this sort, however, deal with the generality of human nature, and do not directly concern us. But directly we are required to make a correct judgment of testimony concerning habit, they will help us to more just interpretations and will reduce the number of crass contradictions. This is so because many an assertion will seem probable when the witness shows that the thing described was habitual. No definite boundary can be drawn between skill and habit, and we may, perhaps, say rightly, that skill is possible only where habit exists, and habit is present where a certain amount of skill has been attained. Skill, generally, is the capacity of speedy habituation. But a distinction must be drawn. Habit makes actions easy. Habituation makes them necessary. This is most obvious in cases of bodily skill,−−riding, swimming, skating, cycling,−− everything in which habit and skill can not be separated, and with regard to which we can not see why we and other untrained people can not immediately do the same thing. And when we can do it, we do it without thinking, as if half asleep. Such action is not <p 408> skilled, but habitual, i. e., a part of it is determined by the body itself without the especial guidance of the mind.

We find the hunter's power to see so many animals, tracks, etc., inconceivable. When, e. g., we have once properly mastered the principle of a quite complicated crystal, we cannot understand why we had not done so before. We feel in the same way with regard to an unclear drawing, a new road, some bodily activity, etc. Anybody who has not acquired the habit might have to take all day to learn the business of dressing and undressing himself. And how difficult it is just to walk, a thing we do unconsciously, is confirmed by the mechanic who wants to construct a walking figure.

That all people are equally subject to habit, is not asserted. The thing is a matter of disposition, in the sense of the recurrence of past ideas or tendencies. We must assume that an inclination evinced by idea A makes possible ideas a', a", a'". Habits may develop according to these dispositions, but the knowledge of the conditions of this development we do not yet possess. Nevertheless, we tend to assume that the famous historian X and the famous Countess Y will not get the habit of drinking or opium−smoking−− but in this case our assumption is deduced from their circumstances, and not from their personality. Hence, it is difficult to say with certainty that a person is incapable of acquiring this or that habit. So that it is of importance, when the question arises, to discover the existence of implied habits whenever these are asserted in the face of apparently contradictory conditions. There is a certain presumption for the correctness of the implication, when, e. g., the practiced physician asserts that he counted the pulse for a minute without a watch, or when the merchant accurately estimates the weight of goods within a few grams, etc. But it will be just as well to test the assertion, since, without this test, the possibility of error is still great.

Somebody asserts, e. g., that he had been distracted and had paid no attention to what two persons close to him had said. Suddenly he began to take notice and found himself able to recapitulate all their remarks. Or again, a musician, who is almost altogether deaf, says that he is so accustomed to music that in spite of his deafness he is able to hear the smallest discord in the orchestra. Yet again, we hear of insignificant, hardly controllable habits that become accidentally significant in a criminal case. Thus the crime of arson was observed by the firebrand's neighbor, who could have seen the action through the window, only if he had leaned far out <p 409> of it. When he was asked what he wanted to see in the cold winter night, he replied, that he had the habit daily of spitting out of the window just before going to bed. Another, who was surprised in his sleep by an entering thief, had heavily wounded the latter with a great brush, ``because he happened to have had it in his hand." The happening was due to his habit of being unable to fall asleep without a brush in his hand. If such habits are demonstrable facts they serve to explain otherwise unexplainable events.

They are, however, the more difficult to establish, because they occur mainly in isolated people−−old bachelors and old maids−− so that their confirmation by others is rare. On the other hand, every one of us knows habits of his own or of his friends which would not be believed when cited, and which would be very difficult to prove when the need arose. The influence of habit on indifferent matters can be shown by numerous examples. There is Kant's citation, that if anybody happened to send his doctor nine ducats the latter would have to believe that the messenger had stolen the tenth. If you give a bride most beautiful linen, but only eleven pieces, she will weep. Give her thirteen pieces, and she will certainly throw one of them away. If

you keep these deep−rooted habits in mind, you may possibly say that they must have had a definite, determinative, and alternative influence on body and mind. For example, from time immemorial mankind has taken medications at definite intervals, e. g., every hour, every two hours, etc.; hence, a powder ordered every seventy−seven minutes will cause us complete surprise. But by what authority does the body require exactly these quantities of time or weight? Or again, our lectures, private or public, so and so much time? Of course it would be inconvenient if professors lectured only 52 minutes, yet how much difficulty must not the mind have met in becoming habituated to exactly 60 minutes of instruction! This habituation has been going on for a long time, and now children, like nations, regard the new in the light of the old, so that the old, especially when it is fixed by language, becomes the mind's instrument for the control of the new. Indeed we often stick linguistically to old things, although they have been long superannuated.

There is the characteristic state of mind which might be called the refraction of an idea by the presence of another idea. An example is the habit of saying, ``Unprepared, as I have−−" before beginning a speech. The speaker means to say that he has not prepared himself, but, as he really has prepared himself, both expressions come out <p 410> together. This habitual concurrence of the real thought is of importance, and offers, frequently, the opportunity of correcting what is said by what is thought. This process is similar to that in which a gesture contradicts a statement. We often hear: ``I had to take it because it was right there." This assertion indicates theft through need, and at the same time, theft through opportunity. Or again, we hear: ``We had not agreed, before"−−this assertion denies agreement and can indicate merely, because of the added ``before," that the agreement was not of already _*long_ standing. Still again, we hear, ``When we fell to the floor, I defended myself, and struck down at him." Here what is asserted is self−defense, and what is admitted is that the enemy was underneath the speaker. Such refractions of thought occur frequently and are very important, particularly in witnesses who exaggerate or do not tell the whole truth. They are, however, rarely noticed because they require accurate observation of each word and that requires time, and our time has no time.

Section 92. (b) Heredity.[1]

[1] Benedict: Heredity. Med Times, 1902, XXX, 289. Richardson: Theories of Heredity. Nature, 1902, LXVI, 630. Petruskewisch: Gedanken zur Vererbung. Freiburg 1904.

However important the question of heredity may be to lawyers psychologically, its application to legal needs is impossible. It would require, on the one hand, the study of all the literature concerning it, together with the particular teachings of Darwin and his disciples, and of Lombroso and his. The criminal−psychological study of it has not yet been established. The unfounded, adventurous, and arbitrary assertions of the Lombrosists have been contradicted, especially through the efforts of German investigators. But others, like Debierre in Lille, Sernoff in Moscow, Taine, Drill, Marchand have also had occasion to controvert the Italian positivists. At the same time, the problem of heredity is not dead, and will not die. This is being shown particularly in the retort of Marchand concerning the examinations he made with M. E. Koslow, in the asylum for juvenile offenders founded by the St. Petersburg Anthropological Society. Between Buckle, who absolutely denies heredity, and the latest of the modern doctrines, there are a number of intermediate views, one of which may possibly be true. There is an enormous literature which every criminalist should study.[2]

[2] Calton: Hereditary Genius 2d Ed. London 1892. Martinak: Einige Ansichten <u:>ber Vererbung moralischer Eigenschaften. Transactions, Viennese Philological society. Leipzig 1893. Haacke: Gestaltung u Vererbunsr Leipzig 1893. Tarde: Les Lois de l'Imitation. Paris 1904. Etc., etc.

<p 411>

Nevertheless, this literature can tell us nothing about the legitimacy of the premise of heredity. Every educated man still believes Darwin's doctrines, and the new theories that seek to emancipate themselves from it do so only by pushing them out of the big front door, and insinuating them through the little back door. But

according to Bois−Reymond Darwinism is only the principle of the hereditary maintenance of the child's variation from its parents. Everybody knows of real inherited characters, and many examples of it are cited. According to Ribot, suicide is hereditary; according to Despine, kleptomania; according to Lucas, vigorous sexuality; according to Darwin, hand−writing, etc. Our personal acquaintances show the inheritance of features, figure, habits, intellectual properties, particularly cleverness, such as, sense of space and time, capacity for orientation, interests, diseases, etc. Even ideas have their ancestors like men, and we learn from the study of animals how instincts, capacities, even acquired ones, are progressively inherited. And yet we refuse to believe in the congenital criminal! But the contradiction is only apparent.

A study of the works of Darwin, Weismann, DeVries, etc., shows us indubitably that no authority asserts the inheritance of great alterations appearing for the first time in an individual. And as to the inheritance of acquired characteristics, some authorities assert this to be impossible.

Until Darwin the old law of species demanded that definite traits of a species should not change through however long a period. The Darwinian principle indicates the inheritance of minute variations, intensified by sexual selection, and, in the course of time, developed into great variations. Now nobody will deny that the real criminal is different from the majority of other people. That this difference is great and essential, is inferred from the circumstance that a habit a single characteristic, an unhappy inclination, etc., does not constitute a criminal. If a man is a thief it will not be asserted that he is otherwise like decent people, varying only in the accidental inclination to theft. We know that, besides the inclination to theft, we may assign him a dislike for honest work, lack of moral power, indifference to the laws of honor when caught, the lack of real religion,−−in short, the inclination to theft must be combined with a large number of very characteristic qualities in order to make a thief of a man. There must, in a word, be a complete and profound change in his whole nature. Such great changes in the individual are never directly inherited; only particular properties can be <p 412> inherited, but these do not constitute a criminal. Hence, the son of a criminal need not in his turn be a criminal.

This does not imply that in the course of generations characters might not compound themselves until a criminal type is developed, but this is as rare as the development of new species among the animals. Races are frequently selected; species develop rarely.

Section 93. (c) Prepossession.

Prepossession, prejudice, and anticipatory opinion are, perhaps, the most dangerous foes of the criminalist. It is believed that the danger from them is not great, since, in most cases, prepossession controls only one individual, and a criminal case is dealt with by several, but this proves nothing. When the elegant teacher of horseback riding has performed his subtlest tricks, he gracefully removes his hat and bows to the public, and only at that moment does the public observe that it has been seeing something remarkable and applauds heartily, not because it has understood the difficulty of the performance, but because the rider has bowed. This happens to us however good our will. One man has a case in hand; he develops it, and if, at the proper time, he says ``Voila,'' the others say, ``Oh, yes,'' and ``Amen.'' He may have been led by a prepossession, but its presence is now no longer to be perceived. Thus, though our assumptions may be most excellently meant, we still must grant that a conviction on false grounds, even when unconsciously arrived at, so suffuses a mind that the event in itself can no longer be honestly observed. To have no prejudices indicates a healthy, vigorous mind in no sense. That is indicated by the power to set aside prejudices as soon as their invalidity is demonstrated. Now this demonstration is difficult, for when a thing is recognized as a prejudice, it is one no longer. I have elsewhere,[1] under the heading ``anticipatory opinion,'' indicated the danger to which the examining justice is subject thereby, and have sought to show how even a false idea of location may lead to a prepossession in favor of a certain view; how vigorous the influence of the first witness is, inasmuch as we easily permit ourselves to be taken in by the earliest information, and later on lack time to convince ourselves that the matter may not be as our earliest advice paints it. Hence, false information necessarily conceals a danger, and it always is a matter of effort to see that the crime is a fictitious one, or that something which has

been called accident may conceal a crime. The average man knows <p 413> this well, and after a brawl, after contradictory testimony, etc., both parties hurry to be beforehand in laying the information. Whoever lays the information first has the advantage. His story effects a prepossession in favor of his view, and it requires effort to accustom oneself to the opposite view. And later it is difficult to reverse the r<o^>les of witness and defendant.

[1] Manual.

But we have to deal with prepossession in others besides ourself, in witnesses, accused, experts, jury, colleagues, subordinates, etc. The more we know, the newer new things seem. Where, however, the apperceptive mass is hard and compact, the inner reconstruction ceases, and therewith the capacity for new experiences, and hence, we get those judges who can learn nothing and forget nothing. Indefiniteness in the apperceptive masses results in the even movement of apperception. Minds with confused ideational complexes hit little upon the particular characteristic of presented fact, and find everywhere only what they have in mind.

The one−sidedness of apperception frequently contains an error in conception. In most cases, the effective influence is egoism, which inclines men to presuppose their own experiences, views, and principles in others, and to build according to them a system of prepossessions and prejudices to apply to the new case. Especially dangerous are the _*similar_ experiences, for these tend to lead to the firm conviction that the present case can in no sense be different from former ones. If anybody has been at work on such earlier, similar cases, he tends to behave now as then. His behavior at that time sets the standard for the present, and whatever differs from it he calls false, even though the similarity between the two cases is only external and apparent.

It is characteristic of egoism that it causes people to permit themselves to be bribed by being met half−way. The inclination and favor of most men is won by nothing so easily and completely as by real or apparent devotion and interest. If this is done at all cleverly, few can resist it, and the prepossession in their favor is complete. How many are free of prejudice against ugly, deformed, red−haired, stuttering, individuals, and who has no prejudice in favor of handsome, lovable people? Even the most just must make an effort so to meet his neighbor as to be without prejudice for or against him, because of his natural endowment.

Behavior and little pleasantnesses are almost as important. Suppose that a criminalist has worked hard all morning. It is long past the time at which he had, for one reason or another, hoped to <p 414> get home, and just as he is putting his hat on his head, along comes a man who wants to lay information concerning some ancient apparent perjury. The man had let it go for years, here he is with it again at just this inconvenient moment. He has come a long distance −−he can not be sent away. His case, moreover, seems improbable and the man expresses himself with difficulty. Finally, when the protocol is made, it appears that he has not been properly understood, and moreover, that he has added many irrelevant things−−in short, he strains one's patience to the limit. Now, I should like to know the criminalist who would not acquire a vigorous prejudice against this complainant? It would be so natural that nobody would blame one for such a prejudice. At the same time it is proper to require that it shall be only transitive, and that later, when the feeling has calmed, everything shall be handled with scrupulous conscientiousness so as to repair whatever in the first instance might have been harmed.

It is neither necessary nor possible to discuss all the particular forms of prepossession. There is the unconditional necessity of merely making a thoroughly careful search for their presence if any indication whatever, even the remotest, shows its likelihood. Of the extremest limit of possible prejudice, names may serve as examples. It sounds funny to say that a man may be prejudiced for or against an individual by the sound of his name, but it is true. Who will deny that he has been inclined to favor people because they bore a beloved name, and who has not heard remarks like, ``The very name of that fellow makes me sick." I remember clearly two cases. In one, Patriz Sevenpounder and Emmerenzia Hinterkofler were accused of swindling, and my first notion was that such honorable names could not possibly belong to people guilty of

swindling. The opposite case was one in which a deposition concerning some attack upon him was signed by Arthur Filgr<e'>. I thought at first that the whole complaint was as windy as the complainant's name. Again, I know that one man did not get the job of private secretary he was looking for because his name, as written, was Kilian Krautl. ``How can a man be decent, who has such a foolish name?" said his would−be employer. Then again, a certain Augustinian monk, who was a favorite in a large city, owed his popularity partly to his rhythmical cognomen Pater Peter Pumm.

Our poets know right well the importance for us short−sighted earth−worms of so indifferent a thing as a name, and the best among them are very cautious about the selection and composition of names. Not the smallest part of their effects lies in the successful tone of the <p 415> names they use. And it was not unjust to say that Bismark could not possibly have attained his position if he had been called Maier.

Section 94. (d) Imitation and the Crowd.

The character of the instinct of imitation and its influence on the crowd has long been studied in animals, children, and even men, and has been recognized as a fundamental trait of intellect and the prime condition of all education. Later on its influence on crowds was observed, and Napoleon said, ``Les crimes collectifs n'engagent personnes." Weber spoke of moral contagion, and it has long been known that suicide is contagious. Baer, in his book on ``Die Gef<a:>ngnisse," has assigned the prison−suicides ``imitative tendency." There is the remarkable fact that suicides often hang themselves on trees which have already been used for that purpose. And in jails it is frequently observed that after a long interval a series of suicides suddenly appear.

The repetition of crimes, once one has been committed in a particular way, is also frequent; among them, the crime of child−murder. If a girl has stifled her child, ten others do so; if a girl has sat down upon it, or has choked it by pressing it close to her breast, etc., there are others to do likewise. Tarde believes that crime is altogether to be explained by the laws of imitation. It is still unknown where imitation and the principles of statistics come into contact, and it is with regard to this contact we find our greatest difficulties. When several persons commit murder in the same way we call it imitation, but when definite forms of disease or wounds have for years not been noticed in hospitals and then suddenly appear in numbers, we call it duplication. Hospital physicians are familiar with this phenomenon and count on the appearance of a second case of any disease if only a first occurs. Frequently such diseases come from the same region and involve the same extraordinary abnormalities, so that nothing can be said about imitation. Now, how can imitation and duplication be distinguished in individual cases? Where are their limits? Where do they touch, where cover each other? Where do the groups form?

There is as yet no solution for the crimino−political interpretation of the problems of imitation, and for its power to excuse conduct as being conduct's major basis. But the problems have considerable symptomatic and diagnostic value. At the very least, we shall be able to find the sole possibility of the explanation of the nature or manner of a crime in the origin of the stimulus to some particular <p 416> imitation. Among youthful persons, women especially, there will be some anticipatory image which serves as a plan, and this will explain at least the otherwise inexplicable and superfluous concomitants like unnecessary cruelty and destruction. The knowledge of this anticipatory image may give even a clew to the criminal, for it may indicate the nature of the person who could act it out and realize it. Also in our field there exists ``duplication of cases."

The condition of action in great crowds offers remarkable characteristics. The most instructive are the great misfortunes in which almost every unhappy individual conducts himself, not only irrationally but, objectively taken, criminally towards his fellows, inasmuch as he sacrifices them to his own safety without being in real need. To this class belong the crossing of bridges by retreating troops in which the cavalry stupidly ride down their own comrades in order to get through. Again, there are the well−known accidents, e. g., at the betrothal of Louis XVI., in which 1200 people were killed in the crush, the fires at the betrothal of Napoleon, in the Viennese Ringtheater in 1881, and the fire on the picnic−boat ``General Slocum," in 1904. In each of these

cases horrible scenes occurred, because of the senseless conduct of terrified people. It is said simply and rightly, by the Styrian poet, ``One individual is a man, a few are people, many are cattle." In his book on imitation, Tarde says, ``In crowds, the calmest people do the silliest things," and in 1892, at the congress for criminal anthropology, ``The crowd is never frontal and rarely occipital; it is mainly spinal. It always contains something childish, puerile, quite feminine." He, Garnier, and Dekterew, showed at the same congress how frequently the mob is excited to all possible excesses by lunatics and drunkards. Lombroso, Laschi, etc., tell of many cruelties which rebelling crowds committed without rhyme or reason.[1] The ``soul of the crowd," just recently invented, is hardly different from Schopenhauer's Macroanthropos, and it is our important task to determine how much the anthropos and how much the macroanthropos is to be blamed for any crime.

[1] Cf. Friedmann: Die Wahnsinn im V<o:>lkerleben. Wiesbaden 1901. Sighele: La folla deliquente. Studio di psicologia Collettiva 2d Ed. Torino 1895. I delitti della folla studiati seconde la psicologia, il diritto la giurisprudenza. Torino 1902.

Section 95. (e) Passion and Affection.

Passion and affection occasion in our own minds and in those of witnesses considerable confusion of observations, influence, or even <p 417> effect the guilt of the defendant and serve to explain many things at the moment of examination. The essence of passion or affection, its definition and influence, its physical and physiological explanation, is discussed in any psychology. The use of this discussion for the lawyer's purposes has been little spoken of, and possibly can not have more said about it. Things that are done with passion show themselves as such, and require no particular examination in that respect. What we have to do is to discover what might have happened without passion, and especially to protect ourselves from being in person overcome by passion or affection. It is indubitable that the most ``temperamental" of the criminalists are the best, for phlegm and melancholy do not carry one through an examination. The lively and the passionate judges are the most effective, but they also have the defects of their virtues. No one will deny that it is difficult to maintain a calm demeanor with an impudent denying criminal, or in the face of some very cruel, unhuman, or terrible crime. But it is essential to surmount this difficulty. Everyone of us must recall shameful memories of having, perhaps justly, given way to passion. Of course the very temperamental Count Gideon Raday freed his county in a short time from numberless robberies by immediately hanging the mayor of the town in which the robberies occurred, but nowadays so much temperament is not permissible. It is well to recall the painful position of an excellent presiding justice at a murder trial, who attacked the defendant passionately, and had to submit to the latter's really justified reprimand.

The only means of avoiding such difficulties is not to begin quarrelling. Just as soon as a single word is uttered which is in any way improper in polite society, everything is lost. The word is the rolling snow−ball, and how much momentum it may gather depends upon the nature and the training of the judge. Lonely insults are not frequent, and a single improper word breaks down the boundaries. The criminal knows this and often makes use of his knowledge. A man who has ``cussed out" the other fellow is no longer dangerous, he becomes calm and kind, and feels instinctively the need of repairing the damage he has committed by ``going too far." He then exhibits an exaggerated geniality and care upon which many criminals count, and hence intentionally provoke the examiner until he does things and says things he is sorry for.

The emotions of witnesses, especially of those who have been harmed by the crime and of those who have seen something terrible <p 418> and disgusting, and who still tend to get excited over it, constitute a great many difficulties. Against the unconditional reliability of such persons' testimony experienced judges take measures of defence. The participant of this class is never calm; passion, anxiety, anger, personal interest, etc., either anticipate or exaggerate trouble. Of course, we are not speaking of cases in which a wound is considerably exaggerated, or even invented for the sake of money, but of those in which people under emotional stress often say unthinkable things about their enemy, just to get him punished. This, however, is comparatively rare where the damage has been very great. A man who has lost his eye, the father of a raped daughter, the victim impoverished by arson, often behaves very calmly toward the criminal. He makes no

especial accusation, does not exaggerate, and does not insult. A person, however, whose orchard has suffered damage, may behave much worse.

It frequently happens that the sufferer and the defendant really hate each other. Not necessarily because one had broken the other's head, or robbed him; frequently the ostensible reason for coming to trial is the result of a long and far−reaching hatred. That this emotion can go to any length is well known and it is therefore necessary, though not always easy, to seek it out. Hatred is possible among peers, or people who are peers in one connection or another. As a rule, the king will not be able to hate his musketeer, but he will when they are both passionately in love with the same girl, for they are peers in love. Similarly, the high−bred lady will hardly hate her maid, but if she observes the maid's magnificent hair and believes that it is better than her own, she will hate the maid, for there is no difference in rank with regard to the love of hair.

Real hate has only three sources: pain, jealousy, or love. Either the object of hatred has caused his enemy a great irremediable pain or jealousy, or hatred is, was, or will become love. Some authorities believe that there is another source of hatred which becomes apparent when we have done harm to somebody. That this might show itself as hatred or passion similar to hatred is possible, but in most cases it will probably be a feeling of deep shame and regret, which has certain particular characteristics in common with hatred. If it is really hatred, it is hatred through pain. Hatred is difficult to hide, and even criminalists of small experience will overlook it only in exceptional cases. The discovery of envy, which is less forgiving than hatred, less explosive, much profounder and much more extensive, is incomparably more difficult. Real hatred, <p 419> like exquisite passion, requires temperament, and under circumstances may evoke sympathy, but friendless envy, any scamp is capable of. Possibly no other passion endangers and destroys so many lives, chokes off so much service, makes impossible so many significant things, and finally, judges so falsely an endless number of persons. When you remember, moreover, its exaggerated extent, and the poor−spirited, easy trick of hiding it, its dangerous nature can not be overestimated. We lawyers are even more imperilled by it because we do not easily allow people to be praised before us; we require witnesses, etc., to speak incriminatingly most of the time, and we cannot easily see whether they are envious.

However freely one man may speak against another, we may assume that he is telling the truth, or at worst, that he has a false notion of the matter, or was badly instructed, but we rarely think that his envy dictates it all. This idea occurs to us when he is to praise the other man. Then he exhibits a cautious, tentative, narrowing attitude, so that even a person of little experience infers envy. And here the much−discussed fact manifests itself, that real envy requires a certain equality. By way of example the petty shopkeeper is cited as envying his more fortunate competitor, but not the great merchant whose ships go round the world. The feeling of the private toward his general, the peasant toward his landlord, is not really envy, it is desire to be like him. It is anger that the other is better off, but inasmuch as the emotion lacks that effective capacity which we require for envy, we can not call it envy. It becomes envy when something by way of intrigue or evil communication, etc., has been undertaken against the envied person. Thus the mere _*feeling_ is confessed at once. People say, ``How I envy him this trip, his magnificent health, his gorgeous automobile, etc." They do not say: ``I have enviously spoken evil of him, or done this or that against him." Yet it is in the latter form that the actual passion of envy expresses itself.

The capacity of the envious for false representation makes them particularly dangerous in the court−room. If we want to discover anything about an individual we naturally inquire of his colleagues, his relatives, etc. But it is just among these that envy rules. If you inquire of people without influence you learn nothing from them, since they do not understand the matter; if you ask professional people they speak enviously or selfishly, and that constitutes our dilemma. Our attention may be called to envy by the speaker's hesitation, his reserved manner of answering. This is the same in <p 420> all classes, and is valuable because it may warn us against very bad misunderstandings.

As a rule, nothing can be said about passion as a source of crime. We may assume that passion passes through three periods. The first is characterized by the general or partial recurrence of older images; in the second, the

new idea employs its dominating place negatively or positively with respect to the older one,−−the passion culminates; and in the third, the forcibly−disturbed emotional equilibrium is restored. Most emotions are accompanied by well− known physical phenomena. Some have been thoroughly studied, e. g., the juristically important emotion of fear. In fear, breathing is irregular, inspiration is frequently broken, a series of short breaths is followed by one or more deep ones, inspiration is short, expiration is prolonged, one or the other is sobbing. All these phenomena are only a single consequence of the increase of respiratory changes. The irregularity of the latter causes coughing, then a disturbance of speech, which is induced by the irregular action of the muscles of the jaw, and in part by the acceleration of the breathing. In the stages of echoing fear, yawning occurs, and the distention of the pupils may be noticed as the emotion develops. This is what we often see when a denying defendant finds himself confounded by evidence, etc.

The most remarkable and in no way explicable fact is, that these phenomena do not occur in innocent people. One might think that the fear of being innocently convicted would cause an expression of dread, anger, etc., but it does not cause an expression of real terror. I have no other than empirical evidence of the fact, so that many more observations are required before any fresh inferences are deduced therefrom anent a man's guilt or innocence. We must never forget that under such circumstances passions and emotions often change into their opposites according to rule. Parsimony becomes extravagance, and conversely; love becomes hate. Many a man becomes altogether too foolhardy because of despairing fear. So it may happen that terror may become petrifying coldness, and then not one of the typical marks of terror appears. But it betrays itself just as certainly by its icy indifference as by its own proper traits. Just as passions transmute into their opposites, so they carry a significant company of subordinate characteristics. Thus, dread or fear is accompanied by disorderly impertinence, sensuality by cruelty. The latter connection is of great importance to us, for it frequently eliminates difficulties in the explanation of <p 421> crime. That cruelty and lasciviousness have the same root has long been known. The very ecstasy of adventurous and passionate love is frequently connected with a certain cruel tendency. Women are, as a rule, more ferocious than men.[1] It is asserted that a woman in love is constantly desiring her man. If this be true, the foregoing statement is sufficiently explained. In one sense the connection between sexual passion and cruelty is bound up with that unsatiability which is characteristic of several passions. It is best to be observed in passions for property, especially such as involve the sense−perception of money. It is quite correct to speak of the overwhelming, devilish power of gold, of the sensual desire to roll in gold, of the irresistible ring of coins, etc. And it is also correctly held that money has the same definite influence on man as blood on preying animals. We all know innumerable examples of quite decent people who were led to serious crimes by the mere sight of a large sum of money. Knowledge of this tendency may, on occasion, lead to clues, and even to the personality of the criminal.

[1] A. Eulenberg: Sexuale Neuropathie. Leipzig 1895.

Section 96. (f) Honor.

Kant says that a man's honor consists in what people think about him, a woman's in what people say about her. Another authority believes that honor and a sense of honor are an extension of the sense of self in and through others. The essence of my honor is my belief that I exist for others, that my conduct will be judged and valued not only by myself but by others. Falstaff calls honor the painted picture at a funeral. Our authors are both right and wrong, for honor is simply the position a man takes with regard to the world, so that even gamins may be said to have honor. Unwillingness to see this may cause us criminalists considerable trouble. One of the worst men I ever met in my profession, a person guilty of the nastiest crimes, so nasty that he had driven his honorable parents to suicide, had at the expiration of his last sentence of many years in prison, said literally, ``I offer no legal objection against the sentence. I beg, however, for three days' suspension so that I may write a series of farewell letters which I could not write as a prisoner." Even in the heart of this man there was still the light of what other people call honor. We often find similar things which may be used to our advantage in examination. Not, of course, for the purpose of getting confession, accusation of accomplices, etc. This might, <p 422> indeed, serve the interests of the case, but it is easy to identify a pliable attitude with an honorable inclination, and the former must certainly not be exploited, even with the best intention.

Moreover, among persons of low degree, an inclination toward decency will hardly last long and will briefly give way to those inclinations which are habitual to bad men. Then they are sorry for what they had permitted to occur in their better moment and curse those who had made use of that moment.

It is often funny to see the points at which the criminal seeks his ``honor." What is proper for a thief, may be held improper for a robber. The burglar hates to be identified with the pick−pocket. Many a one finds his honor in this wise deeply attacked, particularly when it is shown him that he is betraying an accomplice, or that he has swindled his comrades in the division of booty, etc. I remember one thief who was inconsolable because the papers mentioned that he had foolishly overlooked a large sum of money in a burglary. This would indicate that criminals have professional ambitions and seek professional fame.

Section 97. (g) Superstition.

For a discussion of Superstition see my Handbuch f<u:>r Untersuchungsrichter, etc. (English translation by J. Adam, New York, 1907), and H. Gross's Archiv I, 306; III, 88; IV, 340; V, 290, 207; IX, 253; IV, 168; VI, 312; VII, 162; XII, 334.

Topic 3. MISTAKES.

(a) Mistakes of the Senses.

Section 98. (1) General Considerations.

As sensation is the basis of knowledge, the sensory process must be the basis of the correctness of legal procedure. The information we get from our senses and on which we construct our conclusion, may be said, all in all, to be reliable, so that we are not justified in approaching things we assume to depend on sense−perception with exaggerated caution. Nevertheless, this perception is not always completely correct, and the knowledge of its mistakes must help us and even cause us to wonder that we make no greater ones.

Psychological examination of sense−perception has been going on since Heraclitus. Most of the mistakes discovered have been used for various purposes, from sport to science. They are surprising and attract and sustain public attention; they have, hence, become <p 423> familiar, but their influence upon other phenomena and their consequences in the daily life have rarely been studied. For two reasons. First, because such illusions seem to be small and their far−reaching effects are rarely thought of, as when, e. g., a line drawn on paper seems longer or more inclined than it really is. Secondly, it is supposed that the influence of sensory illusions can not easily make a difference in practical life. If the illusion is observed it is thereby rendered harmless and can have no effect. If it is not observed and later on leads to serious consequences, their cause can not possibly be sought out, because it can not be recognized as such, and because there have been so many intermediate steps that a correct retroduction is impossible.

This demonstrates the rarity of a practical consideration of sense− perception, but does not justify that rarity. Of course, there are great difficulties in applying results of limited experiments to extensive conditions. They arise from the assumption that the conditions will be similar to those which the scientist studies, and that a situation which exhibits certain phenomena under narrow experimental conditions will show them, also, in the large. But this is not the case, and it is for this reason that the results of modern psychology have remained practically unproductive. This, of course, is not a reproach to the discipline of experimental psychology, or an assault upon the value of its researches. Its narrow limitations were necessary if anything definite was to be discovered. But once this has been discovered the conditions may be extended and something practical may be attained to, particularly in the matter of illusion of sense. And this possibility disposes of the second reason for not paying attention to these illusions.

Witnesses do not of course know that they have suffered from illusions of sense; we rarely hear them

complain of it, anyway. And it is for this very reason that the criminalist must seek it out. The requirement involves great difficulties for we get very little help from the immense literature on the subject. There are two roads to its fulfilment. In the first place, we must understand the phenomenon as it occurs in our work, and by tracing it back determine whether and which illusion of the sense may have caused an abnormal or otherwise unclear fact. The other road is the theoretical one, which must be called, in this respect, the preparatory road. It requires our mastery of all that is known of sense−illusion and particularly of such examples of its hidden nature as exist. Much of the material of this kind is, however, irrelevant to our purpose, par− <p 424> ticularly all that deals with disease and lies in the field of medicine. Of course, where the nature of the disease is uncertain or its very presence is unknown, it is as well for us to consider the case as for the physician. But above all, it is our duty to consult the physician.

Apart from what belongs to the physician there is the material which concerns other professions than ours. That must be set aside, though increasing knowledge may require us to make use even of that. It is indubitable that we make many observations in which we get the absolute impression that matters of sensory illusion which do not seem to concern us lie behind some witnesses' observations, etc., although we can not accurately indicate what they are. The only thing to do when this occurs is either to demonstrate the possibility of their presence or to wait for some later opportunity to test the witness for them.

Classification will ease our task a great deal. The apparently most important divisions are those of ``normal" and ``abnormal." But as the boundary between them is indefinite, it would be well to consider that there is a third class which can not fall under either heading. This is a class where especially a group of somatic conditions either favor or cause illusory sense−perceptions, e. g., a rather over−loaded stomach, a rush of blood to the head, a wakeful night, physical or mental over−exertion. These conditions are not abnormal or diseased, but as they are not habitual, they are not normal either. If the overloaded stomach has turned into a mild indigestion, the increase of blood into congestion, etc., then we are very near disease, but the boundary between that and the other condition can not be determined.

Another question is the limit at which illusions of sense begin, how, indeed, they can be distinguished from correct perceptions. The possibility of doing so depends upon the typical construction of the sense−organs in man. By oneself it would be impossible to determine which sensation is intrinsically correct and which is an illusion. There are a great many illusions of sense which all men suffer from under similar conditions, so that the judgment of the majority can not be normative. Nor can the control of one sense by another serve to distinguish illusory from correct perception. In many cases it is quite possible to test the sense of sight by touch, or the sense of hearing by sight, but that is not always so. The simplest thing is to say that a sense−impression is correct and implies reality when it remains identical under various circumstances, in various conditions, when connected with other senses, and observed <p 425> by different men, with different instruments. It is illusory when it is not so constant. But here again the limit of the application of the term ``illusion" is difficult to indicate. That distant things seem to be smaller than they are; that railway tracks and two sides of a street seem to run together are intrinsically real illusions of sense, but they are not so called−−they are called the laws of perspective, so that it would seem that we must add to the notion of sense−perception that of rarity, or extraordinary appearance.

I have found still another distinction which I consider important. It consists in the difference between real illusions and those false conceptions in which the mistake originates as false inference. In the former the sense organ has been really registering wrongly, as when, for example, the pupil of the eye is pressed laterally and everything is seen double. But when I see a landscape through a piece of red glass, and believe the landscape to be really red, the mistake is one of inference only, since I have not included the effect of the glass in my concluding conception. So again, when in a rain I believe mountains to be nearer than they really are, or when I believe the stick in the water to be really bent, my sensations are perfectly correct, but my inferences are wrong. In the last instance, even a photograph will show the stick in water as bent.

This difference in the nature of illusion is particularly evident in those phenomena of expectation that people

tend to miscall ``illusions of sense." If, in church, anybody hears a dull, weak tone, he will believe that the organ is beginning to sound, because it is appropriate to assume that. In the presence of a train of steam cars which shows every sign of being ready to start you may easily get the illusion that it is already going. Now, how is the sense to have been mistaken in such cases? The ear has really heard a noise, the eye has really seen a train, and both have registered correctly, but it is not their function to qualify the impression they register, and if the imagination then effects a false inference, that can not be called an illusion of sensation.

The incorrectness of such classification becomes still more obvious when some numerical, arithmetical demonstration can be given of the presence of faulty inference. For example, if I see through the window a man very far away clearing a lot with an ax, I naturally see the ax fall before I hear the noise of the blow. Now, it may happen that the distance may be just great enough to make me hear the sound of the second blow at the moment in which I see the delivery of the third blow. Thus I perceive at the same moment, <p 426> in spite of the great distance, both the phenomena of light and of sound, just as if I were directly on the spot. Perhaps I will wonder at first about these physical anomalies, and then, if I have made my simple mistake in inference, I shall tell somebody about the remarkable ``sensory illusion" I had today, although no one had ever supposed me capable of being deceived in this way. Schopenhauer calls attention to the familiar fact that on waking after a short nap all localizations are apparently perverted, and the mind does not know what is in front, what behind, what to the right, and what to the left. To call also this sensory illusion, would again be wrong, since the mind is not fully awake, and sufficiently orientated to know clearly its condition. The matter is different when we do not properly estimate an uncustomary sense−impression. A light touch in an unaccustomed part of the body is felt as a heavy weight. After the loss of a tooth we feel an enormous cave in the mouth, and what a nonsensical idea we have of what is happening when the dentist is drilling a hole in a tooth! In all these cases the senses have received a new impression which they have not yet succeeded in judging properly, and hence, make a false announcement of the object. It is to this fact that all fundamentally incorrect judgments of new impressions must be attributed,−−for example, when we pass from darkness into bright light and find it very sharp; when we find a cellar warm in winter that we believe to be ice−cold in summer; when we suppose ourselves to be high up in the air the first time we are on horseback, etc. Now, the actual presence of sensory illusions is especially important to us because we must make certain tests to determine whether testimony depends on them or not, and it is of great moment to know whether the illusions depend on the individual's mind or on his senses. We may trust a man's intellect and not his senses, and conversely, from the very beginning.

It would be superfluous to talk of the importance of sensory illusion in the determination of a sentence. The correctness of the judgment depends on the correctness of the transmitted observations, and to understand the nature of sense−illusion and its frequency is to know its significance for punishment. There are many mistakes of judges based entirely on ignorance of this matter. Once a man who claimed, in spite of absolute darkness, to have recognized an opponent who punched him in the eye, was altogether believed, simply because it was assumed that the punch was so vigorous that the wounded man saw sparks by the light of which he could recognize <p 427> the other. And yet already Aristotle knew that such sparks are only subjective. But that such things were believed is a notable warning.[1]

[1] For literature of Edmund Parish: <U:>ber Trugwahrnehmung. Leipsig 1894. A Cramer: Geriehtliche Psychiatrie. Jena 1897. Th. Lipps: <A:>sthetische Eindr<u:>cke u. optische. Ta<u:>schung. J. Sully: Illusions, London, 1888.

Section 99. (2) *Optical Illusions*.

It will be best to begin the study of optical illusions with the consideration of those conditions which cause extraordinary, lunatic images. They are important because the illusion is recognizable with respect to the possibility of varied interpretations by any observer, and because anybody may experiment for himself with a bit of paper on the nature of false optical apprehension. If we should demonstrate no more than that the simplest conditions often involve coarse mistakes, much will have been accomplished for the law, since the

``irrefutable evidence'' of our senses would then show itself to need corroboration. Nothing is proved with ``I have seen it myself,'' for a mistake in one point shows the equal possibility of mistakes in all other points.

Generally, it may be said that the position of lines is not without influence on the estimation of their size.[2] Perpendicular dimensions are taken to be somewhat greater than they are. Of two crossed lines, the vertical one seems longer, although it is really equal to the horizontal one. An oblong, lying on its somewhat longer side, is taken to be a square; if we set it on the shorter side it seems to be still more oblong than it really is. If we divide a square into equal angles we take the nearer horizontal ones to be larger, so that we often take an angle of thirty degrees to be forty−five. Habit has much influence here. It will hardly be believed, and certainly is not consciously known, that in the letter S the upper curve has a definitely smaller radius than the lower one; but the inverted S shows this at once. To such types other false estimations belong: inclinations, roofs, etc., appear so steep in the distance that it is said to be impossible to move on them without especial help. But whoever does move on them finds the inclination not at all so great. Hence, it is necessary, whenever the ascension of some inclined plane is declared impossible, to inquire whether the author of the declaration was himself there, or whether he had judged the thing at a distance.

[2] Cf. Lotze: Medizinische Psychologie. Leipzig 1852.

<p 428>

Slight crooks are underestimated. Exner[1] rightly calls attention to the fact that in going round the rotunda of the Viennese Prater, he always reached the exit much sooner than he expected. This is due to the presence of slight deviations and on them are based the numerous false estimates of distance and the curious fact that people, on being lost at night in the woods, go round in a significantly small circle. It is frequently observed that persons, who for one reason or another, i. e., robbery, maltreatment, a burglarious assault, etc., had fled into the woods to escape, found themselves at daybreak, in spite of their flight, very near the place of the crime, so that their honesty in fleeing seems hardly believable. Nevertheless it may be perfectly trustworthy, even though in the daytime the fugitive might be altogether at home in the woods. He has simply underestimated the deviations he has made, and hence believes that he has moved at most in a very flat arc. Supposing himself to be going forward and leaving the wood, he has really been making a sharp arc, and always in the same direction, so that his path has really been circular.

[1] Cf. Entwurf, etc.

Some corroboration for this illusion is supplied by the fact that the left eye sees objects on the left too small, while the right eye underestimates the right side of objects. This underestimation varies from 0.3 to 0.7%. These are magnitudes which may naturally be of importance, and which in the dark most affect deviations that are closely regarded on the inner side of the eye−−i. e., deviations to the left of the left eye or the right of the right eye.

Such confusions become most troublesome when other estimations are added to them. So long as the informant knows that he has only been estimating, the danger is not too great. But as a rule the informant does not regard his conception as an estimate, but as certain knowledge. He does not say, ``I estimate,'' he says, ``It is so.'' Aubert tells how the astronomer F<o:>rster had a number of educated men, physicians, etc., estimate the diameter of the moon. The estimation varied from 1" to 8" and more. The proper diameter is 1.5" at a distance of 12".

It is well known that an unfurnished room seems much smaller than a furnished one, and a lawn covered with snow, smaller than a thickly−grown one. We are regularly surprised when we find an enormous new structure on an apparently small lot, or when a lot is parcelled out into smaller building lots. When they are planked off we marvel at the number of planks which can be laid on the sur− <p 429> face. The illusions are still greater when we look upward. We are less accustomed to estimation of verticals than of horizontals. An object on the

gutter of a roof seems much smaller than at a similar distance on the ground. This can be easily observed if any figure which has been on the roof of a house for years is once brought down. Even if it is horizontally twice as far as the height of the house, the figure still seems larger than before. That this illusion is due to defective practice is shown by the fact that children make mistakes which adults find inconceivable. Helmholtz tells how, as child, he asked his mother to get him the little dolls from the gallery of a very high tower. I remember myself that at five years I proposed to my comrades to hold my ankles so that I could reach for a ball from the second story of a house down to the court−yard. I had estimated the height as one−twelfth of its actual magnitude. Certain standards of under and overestimations are given us when there is near the object to be judged an object the size of which we know. The reason for the fact that trees and buildings get such ideal sizes on so−called heroic landscape is the artistically reduced scale. I know that few pictures have made such a devilish impression on me as an enormous landscape, something in the style of Claude Lorraine, covering half a wall. In its foreground there is to be seen a clerk riding a horse in a glen. Rider and horse are a few inches high, and because of this the already enormous landscape becomes frightfully big. I saw the picture as a student, and even now I can describe all its details. Without the diminutive clerk it would have had no particular effect.

In this connection we must not forget that the relations of magnitude of things about us are, because of perspective, so uncertain that we no longer pay any attention to them. ``I find it difficult," says Lipps,[1] ``to believe that the oven which stands in the corner of the room does not look larger than my hand when I hold it a foot away from my eyes, or that the moon is not larger than the head of a pin, which I look at a little more closely.... We must not forget how we are in the custom of comparing. I compare hand and oven, and I think of the hand in terms of the oven." That is because we know how large the hand and the oven are, but very often we compare things the sizes of which we do not know, or which we can not so easily get at, and then there are many extraordinary illusions.

[1] Die Grundtatsachen des Seelenlebens. Bonn 1883.

In connection with the cited incident of the estimation of the <p 430> moon's diameter, there is the illusion of Thomas Reid who saw that the moon seemed as large as a plate when looked at with the unhampered eye, but as large as a dollar when looked at through a tube. This mistake establishes the important fact that the size of the orifice influences considerably the estimation of the size of objects seen through it. Observations through key−holes are not rarely of importance in criminal cases. The underestimations of sizes are astonishing.

{illust. caption = FIG. 1.}

{illust. caption = FIG. 2.}

A<e:>rial perspective has a great influence on the determination of these phenomena, particularly such as occur in the open and at great distances. The influence is to be recognized through the various appearances of distant objects, the various colors of distant mountains, the size of the moon on the horizon, and the difficulties which a<e:>rial perspective offers painters. Many a picture owes <p 431> its success or failure to the use of a<e:>rial perspective. If its influence is significant in the small space of a painting, the illusions in nature can easily become of enormous significance, particularly when extremes are brought together in the observations of objects in unknown regions. The condition of the air, sometimes foggy and not pellucid, at another time particularly clear, makes an enormous difference, and statements whether about distance, size, colors, etc., are completely unreliable. A witness who has several times observed an unknown region in murky weather and has made his important observation under very clear skies, is not to be trusted.

An explanation of many sensory illusions may be found in the so−called illusory lines. They have been much studied, but Z<o:>llner[1] has been the first to show their character. Thus, really quite parallel lines are made to appear unparallel by the juxtaposition of inclined or crossing lines. In figures 1 and 2 both the horizontal lines are actually parallel, as may be determined in various ways.

[1] Poggendorf's Annelen der Physik, Vol. 110, p. 500; 114, 587; 117, 477.

The same lines looked at directly or backwards seem, in Fig. 1, convex, in Fig. 2 concave.

{illust. caption = FIG. 3.}

Still more significant is the illusion in Fig. 3, in which the convexity is very clear. The length, etc., of the lines makes no difference in the illusion. <p 432>

On the other hand, in Fig. 4 the diagonals must be definitely thicker than the parallel horizontal lines, if those are to appear not parallel. That the inclination is what destroys the appearance of parallels is shown by the simple case given in Fig. 5, where the distance from A to B is as great as from B to C, and yet where the first seems definitely smaller than the second.

Still more deceptive is Fig. 6 where the first line with the angle inclined inwards seems incomparably smaller than the second with the angle inclined outwards.

{illust. caption = FIG 4.}

All who have described this remarkable subject have attempted to explain it. The possession of such an explanation might put

{illust. caption = FIG. 5.}

{illust. caption = FIG. 6.}

us in a position to account for a large number of practical difficulties. But certain as the facts are, we are still far from their _*why_ and _*how_. We may believe that the phenomenon shown in Figs. 1 and 2 appears when the boundaries of a field come straight up to a street with parallel sides, with the result that at the point of meeting the street seems to be bent in. Probably we have observed this frequently without being aware of it, and have laid no particular stress on it, first of all, because it was really unimportant, and secondly, because we thought that the street was really not straight at that point.

In a like manner we may have seen the effect of angles as shown in Figs. 5 and 6 on streets where houses or house−fronts were built cornerwise. Then the line between the corners seemed longer or shorter, and as we had no reason for seeking an accurate judgment <p 433> we paid no attention to its status. We simply should have made a false estimate of length if we had been required to judge it. It is also likely that we may have supposed an actual or suppository line on the side of the gables of a house enclosed by angles of the gables, to be short,−−but until now the knowledge of this supposition has had no practical value. Nevertheless, the significance of these illusions should not be underestimated. They mean most of all the fact that we really can be much deceived, even to the degree of swearing to the size of a simple thing and yet being quite innocently mistaken. This possibility shows, moreover, that the certainty of our judgment according to sensible standards is inadequate and we have no way of determining how great this inadequacy is. We have already indicated that we know only the examples cited by Z<o:>llner, Delboeuf and others. It is probable that they were hit upon by accident and that similar ones can not be discovered empirically or intentionally. Hence, it may be assumed that such illusions occur in great number and even in large dimensions. For example, it is known that Thompson discovered his familiar ``optical circle illusion'' (six circles arranged in a circle, another in the middle. Each possesses bent radii which turn individually if the whole drawing is itself turned in a circle) by the accident of having seen the geometrical ornament drawn by a pupil. Whoever deals with such optical illusions may see very remarkable ones in almost every sample of ladies' clothes, particularly percale, and also in types of carpets and furniture. And these are too complicated to be described. In the course of time another collection of such illusions will be discovered and an explanation of them will be forthcoming, and then it

may be possible to determine how our knowledge of their existence can be turned to practical use.

Practical application is easier in the so−called inversion of the visual object. Fig. 7 shows the simplest case of it−−the possibility of seeing the middle vertical line as either deeper or higher than the others. In the first instance you have before you a gutter,

{illust. caption = FIG. 7.}

{illust. caption = FIG. 8.}

in the second a room. Similar relations are to be observed in the case of a cube in which the corner a may be seen as either convex or concave according as <p 434> you think it behind or before the background of the angles from which *a* proceeds. It is still clearer when, in a rhomboid, the line *XY* is drawn. Then *x* or *y* may be seen alternately as nearer or further and the figure can thereby be brought into a different position. (Fig. 9.) Done once it may be repeated voluntarily.

There are many practical examples of these illusions. Sinsteden saw one evening the silhouette of a windmill against a luminous background. The arms seemed now

{illust. caption = FIG. 9.}

to go to the right, now to the left−−clearly because he did not make out the body of the mill and might equally assume that he saw it from the front or from the rear, the wheels going toward the right in the first, and toward the left in the other case. An analogous case is cited by Bernstein. If (Fig. 10) the cross made of the thin lines stand for the bars of a weather vane and the heavy lines represent the weather vane itself, it may be impossible under the conditions of illumination for an eye looking from N to distinguish whether the weather vane points NE or SW; there is no way of determining the starting point of motion. All that can certainly be said is that the weather vane lies between NE and SW and that

{illust. caption = FIG. 10.}

its angle is at the crossing of the two lines, but the direction in which its heads point can not be determined at even a slight distance. Both forms of this illusion may occur in a criminal trial. If once a definite idea of some form of order has been gained, it is not abandoned or doubted, and is even sworn to. If asked, for example, whether the mill−wheel moved right or left, the observer will consider hardly one time in a hundred whether there might not have been an optical illusion. He will simply assure <p 435> us that the thing was as he thinks he saw it, and whether he saw it correctly is purely a matter of luck.

To all these illusions may be added those which are connected with movement or are exposed by movement. During the movement of certain bodies we can distinguish their form only under definite conditions. As their movement increases they seem shorter in the direction of movement and as it decreases they seem broader than normally. An express train with many cars seems shorter when moving directly near us, and rows of marching men seem longer. The illusion is most powerful when we look through a stationary small opening. The same thing occurs when we move quickly past bodies, for this makes them seem very short as we go by.

Of such cases sense−illusion does not constitute an adequate explanation; it must be supplemented by a consideration of certain inferences which are, in most instances, comparatively complex.[1] We know, e. g., that objects which appear to us unexpectedly at night, particularly on dark, cloudy nights, seem inordinately magnified. The process is here an exceedingly complex one. Suppose I see, some cloudy night, unexpectedly close to me a horse whose environment, because of the fog, appears indistinct. Now I know from experience that objects which appear from indistinct environments are as a rule considerably distant. I know, further, that considerably distant objects seem much smaller, and hence I must assume that the horse, which in spite of its

imaginary distance appears to retain its natural size, is really larger than it is. The train of thought is as follows: ``I see the horse indistinctly. It seems to be far away. It is, in spite of its distance, of great size. How enormous it must be when it is close to me!" Of course these inferences are neither slow nor conscious. They occur in reflection with lightning−like swiftness and make no difference to the certainty of the instantaneous judgment. Hence it is frequently very difficult to discover the process and the mistake it contains.

[1] W. Larden: Optical Illusion. Nature LXIII, 372 (1901).

If, however, the observer finds an inexplicable hiatus in an event he happens to notice, he finds it strange because unintelligible. In this way is created that notion of strangeness which often plays so great a r<o^>le in the examination of witnesses. Hence when under otherwise uncomfortable conditions, I see a horse run without hearing the beat of his hoofs, when I see trees sway without feeling any storm; when I meet a man who, in spite of the moonlight, has no shadow, I feel them to be very strange because something is lacking <p 436> in their logical development as events. Now, from the moment a thing becomes strange to an individual his perceptions are no longer reliable, it is doubtful whether he knows what he has really experienced before his world became strange to him. Add to this that few people are unwilling to confess that they felt ill at ease, that perhaps they do not even know it,[1] and you get the complicated substitution of sensory illusions and uncanny sensation, the one causing the other, the other magnifying the one, and so on until the whole affair is turned into something quite unrecognizable. So we find ourselves in the presence of one of the inexplicable situations of the reality of which we are assured by the most trustworthy individuals.

[1] H. Gross: Lehrbuch f<u:>r den Ausforschungsdienst der Gendarmerie.

To magnify this phenomenon, we need only think of a few slightly abnormal cases. It has already been indicated that there are many such which are not diseased, and further, that many diseased cases occur which are not known as such, at least, as being so much so as to make the judge call in the doctor. This is the more likely because there are frequently, if I may say so, localized diseases which do not exhibit any extraordinary symptoms, at least to laymen, and hence offer no reason for calling in experts. If we set aside all real diseases which are connected with optical illusions as not concerning us, there are still left instances enough. For example, any medical text−book will tell you that morphine fiends and victims of the cocaine habit have very strong tendencies to optical illusions and are often tortured by them. If the disease is sufficiently advanced, such subjects will be recognized by the physician at a single glance. But the layman can not make this immediate diagnosis. He will get the impression that he is dealing with a very nervous invalid, but not with one who is subject to optical illusions. So, we rarely hear from a witness that he knows such people, and certainly not that he is one himself. A very notable oculist, Himly, was the first to have made the observation that in the diseased excitability of the retina every color is a tone higher. Luminous black looks blue, blue looks violet, violet looks red, red looks yellow. Torpor of the retina inverts the substitution.

Dietz[2] tells of color−illusions following upon insignificant indigestion; Foder<e!> of hysterics who see everything reversed, and Hoppe[3] says, ``If the order of the rods and cones of the retina is somewhat disturbed by an inflammatory touch, the equilibrium of vision is

[2] <U:>ber die Quelle der Sinnest<a:>uschungen. Magazin f<u:>r Seelenkunde VIII.

[3] Erkl<a:>rung der Sinnest<a:>uschungen. Wurzburg 1888.

<p 437> altered and changes in size, in form, or appearance occur." Naturally the criminalist can not perceive slight indigestion, weak hysteria, or an inflamed area in the retina when he is examining witnesses, yet false observations like those described may have a definite influence upon the decision in a case.

If such abnormal occasions are lacking the reasons for optical illusions are of another nature. As a rule optical illusions occur when there is an interruption in the communication between the retina, the sense of movement,

and the sense of touch, or when we are prevented from reducing the changes of the retinal image to the movement of our body or of our eyes. This reduction goes on so unconsciously that we see the idea of the object and its condition as a unit. Again, it is indubitable that the movement of the body seems quicker when we observe it with a fixed glance than when we follow it with our eyes. The difference may be so significant that it is often worth while, when much depends on determining the speed of some act in a criminal case, to ask how the thing was looked at.

Fechner has made a far−reaching examination of the old familiar fact that things on the ground appear to run when we ride by them rapidly.[1] This fact may be compared with the other, that when you look directly into swift−moving water from a low bridge, the latter seems all of a sudden to be swimming rapidly up stream, though the water does not appear to stand still. Here some unknown factor is at work and may exercise considerable influence on many other phenomena without our being able to observe the results. To this class may be added the extraordinary phenomenon that from the train objects easily seem too near and hence appear smaller than they are. It may be, however, that the converse is true and objects appear smaller, or at least shorter, and that inasmuch as we are in the habit of attributing the diminution of size in objects to their distance, we tax the latter as false. So much is certain−−that whenever we ourselves move quickly we make false judgments of size, distance, and even color. The last may be due to the fact that during a quick passage, colors may so compose themselves, that green and red become white, and blue and yellow, green, etc. I believe that all these illusions are increasing in connection with the spread of bicycling, inasmuch as many observations are made from the fleeting wheel and its motion tends to increase the illusions considerably. Concerning the differences in movement Stricker[2]

[1] Elemente die Psychophysik. Leipzig 1889.

[2] Studien <u:>ber die Sprachvorstellung. Vienna 1880.

<p 438> says: ``If I lie on my back and see a bird fly in the uniformly blue heaven, I recognize the movement although I have no object with which to compare it. This can not be explained by the variety of points on the retina which are affected, for when the bird pauses and I turn my eye, I know that it is not moving." The last argument is not correct. If the bird is sitting on a branch I know, in spite of all my occipital movement, that it is quiet, but only because I perceive and observe the bird's immobility. If, however, I lie on my back like Stricker and see above me a bird of the class that, so to speak, swim motionless in the air for minutes at a time, and if then I turn my head, I can not tell when the bird begins to move. Here then we have no exception to the general rule and can always say that we are speaking of movement optically perceived when the rays issuing from any body progressively touch various points on the retina. And since this occurs when we are in motion as well as when the object is in motion it happens that we can not locate the movement, we cannot say whether it be in us or in the object.

Of course, the possibility that fanciful images may appear during movement is familiar. If I sit quietly in the forest and at some distance see a stone or a piece of wood or a little heap of dried leaves, etc., it may be that, because of some illusion, I take it to be a rolled up hedgehog, and it may happen that I am so convinced of the nature of the object while I am looking at it that I see how the hedgehog stretches itself, sticks out its paws and makes other movements. I remember one winter when, because of some delay, a commission on which I was serving had failed to reach a village not far from the capital. We had gone to investigate a murder case and had found the body frozen stiff. The oven in the room was heated and the grave−digger placed the stiff body near the oven in order to thaw it out. We at this time were examining the place. After a while I was instructed by the examining justice to see about the condition of the corpse, and much to my disgust, I found it sitting near the oven, bent over. It had thawed out and collapsed. During the subsequent obduction I saw most clearly how the corpse made all kinds of movements, and even after the section, during the dictation of the protocol, my imagination still seemed to see the corpse moving a hand or a foot.

The imagination may also cause changes in color. Once, I saw on my desk, which stood next to a window, a

great round drop of water on the left side of which the panes of the window were reflected. (Fig. 11). The whole business was about a meter <p 439> from my eye. I saw it repeatedly while working and it finally occurred to me to inquire how such a great drop of water could get there. I had sat at my desk for hours without moving. I must have observed it if it had dropped there. Refraining intentionally from going closer, I started, without avail, to consider how it could have

{illust. caption = FIG. 11.}

come. Some time after I examined the drop of water FIG. 11. and found it to be an ink−blot, long ago completely dried, and bearing on its left side a few grains of white cigar ash. I had taken these to be the image of the window, and hence, had immediately attached to it the idea of the shining, raised drop of water. I had altogether overlooked the deep black color of the drop. On the witness stand I would have sworn that I had seen a drop of water, even if I had known the evidence on the matter to be important.

In many cases it is possible to control the imagination, but only when it is known that the images can not be as they are seen. Everybody is aware how a half−covered object at a distance, or objects accidentally grouped in one way or another, are taken for God knows what. Thus once, looking from my desk to my smoking table, I saw an enormous pair of tailor's scissors half−covered by a letter. It remained identical under a number of repeated glances. Only when I thought vigorously that such a thing could not possibly be in my room did it disappear. A few scales of ashes, the lower round of the match safe, the metal trimmings of two cigar boxes half− covered by a letter and reflected by the uncertain light breaking through the branches of a tree, were all that the tailor's scissors was composed of. If there had been such a thing in the house, or if I had believed something like it to exist in the house, I should have sought no further and should have taken my oath that I had seen the thing. It is significant that from the moment I understood the phenomenon I could not restore the image of the scissors. How often may similar things be of importance in criminal trials!

The so−called captivation of our visual capacity plays a not unimportant part in distinguishing correct from illusory seeing. In order to see correctly we must look straight and fully at the object. Looking askance gives only an approximate image, and permits the imagination free play. Anybody lost in a brown study who pictures some point in the room across the way with his eyes can easily mistake a fly, which he sees confusedly askance, for a great big bird. Again, the type of a book seems definitely smaller if the eyes are fixed on the point of a lead pencil with a certain distance <p 440> before or above the book. And yet again, if you stand so that at an angle of about 90 degrees from the fixation point, you look at a white door in a dark wall, observing its extent in indirect vision, you will find it much higher than in direct vision.

These examples indicate how indirect vision may be corrected by later correct vision, but such correction occurs rarely. We see something indirectly; we find it uninteresting, and do not look at it directly. When it becomes of importance later on, perhaps enters into a criminal case, we think that we have seen the thing as it is, and often swear that ``a fly is a big bird."

There are a number of accidents which tend to complete illusion. Suppose that the vision of a fly, which has been seen indirectly and taken for a big bird happens to be synchronous with the shriek of some bird of prey. I combine the two and am convinced that I have seen that bird of prey. This may increase, so much so that we may have series of sense−illusions. I cite the example of the decorative theatrical artist, who can make the most beautiful images with a few, but very characteristic blots. He does it by emphazising what seems to us characteristic, e. g., of a rose arbor, in such a way that at the distance and under the conditions of illumination of the theatre we imagine we really see a pretty rose arbor. If the scene painter could give definite rules he would help us lawyers a great deal. But he has none, he proceeds according to experience, and is unable to correct whatever mistakes he has committed. If the rose arbor fails to make the right impression, he does not try to improve it−−he makes a new one. This may lead to the conclusion that not all people require the same characteristics in order to identify a thing as such, so that if we could set the rose arbor on the stage by itself, only a part of the public would recognize it as properly drawn, the other part would probably not recognize it

at all. But if, of an evening, there is a large number of decorations on the stage, the collective public will find the arbor to be very pretty. That will be because the human senses, under certain circumstances, are susceptible to sympathetic induction. In the case of the rose arbor we may assume that the artist has typically represented the necessary characteristics of the arbor for one part of the audience, for another part those of a castle, for another part those of a forest, and for a fourth those of a background. But once an individual finds a single object to be correct, his senses are already sympathetically inductive, i. e., captivated for the correctness of the whole collection, so that the correctness passes from one object to the total <p 441> number. Now, this psychic process is most clear in those optical illusions which recently have been much on public exhibition (the Battle of Gravelotte, the Journey of the Austrian Crown Prince in Egypt, etc.). The chief trick of these representations is the presenting of real objects, like stones, wheels, etc., in the foreground in such a way that they fuse unnoticeably with the painted picture. The sense of the spectator rests on the plastic objects, is convinced of their materiality and transfers the idea of this plasticity to the merely pictured. Thus the whole image appears as tri−dimensional.

The decorations of great parks at the beginning of the last century indicate that illumination and excited imagination are not alone in causing such illusions. Weber tells ecstatically of an alley in Schwetzing at the end of which there was a highly illuminated concave wall, painted with a landscape of mountains and water−falls. Everybody took the deception for a reality because the eye was captivated and properly inducted. The artist's procedure must have been psychologically correct and must have counted upon the weakness of our observation and intellection. Exner points to the simple circumstance that we do not want to see that things under certain conditions must terminate. If we draw a straight line and cover an end with a piece of paper, every one wonders that the line is not longer when the paper is removed.

I know of no case in criminal procedure where illusions of this kind might be of importance, but it is conceivable that such illusions enter in numberless instances. This is especially susceptible of observation when we first see some region or object hastily and then observe it more accurately. We are astonished how fundamentally false our first conception was. Part of this falseness may be adduced to faults of memory, but these play little or no part if the time is short and if we are able to recall that the false conception appeared just as soon as we observed the situation in question. The essential reason for false conception is to be found only in the fact that our first hasty view was incorrectly inducted, and hence, led to illusions like those of the theatre. Thus, it is possible to take a board fence covered at points with green moss, for a moss−covered rock, and then to be led by this to see a steep cliff. Certain shadows may so magnify the size of the small window of an inn that we may take it to be as large as that of a sitting room. And if we have seen just one window we think all are of the same form and are convinced that the inn is a mansion. Or again, we see, half−covered, through the woods, a distant pool, and in memory we then see the possibly, <p 442> but not necessarily, present river. Or perhaps we see a church spire, and possibly near it the roof of a house rises above the trees; then we are inducted into having seen a village, although there really are visible only the church and the house.

These illusions again, I must repeat, are of no importance if they are at all doubted, for then the truth is ascertained. When, however, they are not doubted and are sworn to, they cause the greatest confusion in trials. A bar−room quarrel, a swung cane, and a red handkerchief on the head, are enough to make people testify to having seen a great brawl with bloody heads. A gnawing rat, a window accidentally left open through the night, and some misplaced, not instantaneously discovered object, are the ingredients of a burglary. A man who sees a rather quick train, hears a shrill blowing of the whistle, and sees a great cloud, may think himself the witness of a wreck. All these phenomena, moreover, reveal us things as we have been in the habit of seeing them. I repeat, here also, that the photographic apparatus, in so far as it does not possess a refracting lens, shows things much more truly than our eye, which is always corrected by our memory. If I permit a man sitting on a chair to be photographed, front view, with his legs crossed and stretched far out, the result is a ludicrous picture because the boots seem immensely larger than the head of the subject. But the photograph is not at fault, for if the subject is kept in the same position and then the apparent size of head and boot are measured, we get accurately the same relation as on the photograph. We know by experience how big a head

is. And hence, we ordinarily see all relations of size in proper proportion. But on the photograph we can not apply this ``natural'' standard because it is not given in nature, and we blame the camera.

If, in a criminal case, we are dealing with a description of size, and it is given as it is known from experience, not as it really appears, then if experience has deceived us, our testimony is also wrong, although we pretend to have testified on the basis of direct sense− perception.

The matter of after−images, probably because of their short duration, is of no criminalistic importance. I did once believe that they might be of considerable influence on the perception of witnesses, but I have not succeeded in discovering a single example in which this influence is perceptible.

On the other hand, the phenomenon of irradiation, the appearance of dark bodies as covered with rays of light by adjacent luminosities, <p 443> is of importance. This phenomenon is well−known, as are Helmholtz's and Plateau's explanations of it. But it is not sufficiently applied. One needs only to set a white square upon the blackest possible ground and at the same time a similar black square of equal size on a white ground, and then to place them under a high light, to perceive how much larger the white square appears to be. That such phenomena often occur in nature need not be expounded. Whenever we are dealing with questions of size it is indubitably necessary to consider the color of the object and its environment with respect to its background and to the resulting irradiation.

Section 100. (3) *Auditory Illusions*.

From the point of view of the criminalist, auditory illusions are hardly less significant than visual illusions, the more so, as incorrect hearing is much more frequent than incorrect seeing. This is due to the greater similarity of tones to each other, and this similarity is due to the fact that sound has only one dimension, while vision involves not only three but also color. Of course, between the booming of cannons and the rustling of wings there are more differences than one, but the most various phenomena of tones may be said to vary only in degree. For purposes of comparison moreover, we can make use only of a class of auditory images on the same plane, e. g., human voices, etc. Real acoustic illusions are closely connected with auditory misapprehension and a distinction between these two can not be rigorously drawn. A misapprehension may, as a rule, be indicated by almost any external condition, like the relations of pitch, echo, repetition, false coincidence of waves of sound, etc. Under such circumstances there may arise real illusions.

The study of auditory illusions is rendered especially difficult by the rarity of their repetition, which makes it impossible reliably to exclude accidents and mistakes in observation. Only two phenomena are susceptible of accurate and sufficient study. For three summers a man used to ride through the long street in which I live. The man used to sell ice and would announce himself by crying out, ``Frozen,'' with the accent on the Fro. This word was distinctly audible, but if the man came to a definite place in the street, there were also audible the words ``Oh, my.'' If he rode on further the expression became confused and gradually turned into the correct, ``Frozen.'' I observed this daily, got a number of others to do so, without telling them of the illusion, but each heard <p 444> the same thing in spite of the distinct difference between ``frozen,'' and ``oh, my.''

I made a similar observation at a bicycle school. As is known, beginners are able frequently to ride by themselves but need help in mounting and dismounting their machines. To do so they call a teacher by crying out: ``Herr Maier.'' At a certain place this sound would seem distinctly to be ``mamma.'' I was at first much surprised to hear people of advanced age cry cheerfully, ``mamma.'' Later I discovered what the word really was and acquaintances whose attention I called to the matter confirmed my observation. Such things are not indifferent, they show that really very different sounds may be mistaken for one another, that the test of misunderstandings may often lead to false results, since only during the test of an illusion are both auditor and speaker accurately in the same position as before. Finally, these things show that the whole business of correcting some false auditions is very difficult. Yet this work of correction may be assumed to be much more easy with respect to hearing than with respect to seeing. If, e. g., it is asserted that the revolver has been seen

somewhere, and if it has been known that the sight was impossible, it becomes just as impossible, almost, to determine what the object seen really was. In the rarest cases only will it be something altogether similar, e. g., a pistol; most of the time it will be an object which could not be inferred from no matter what combinations. In hearing, on the contrary, if once it is determined that there has been a false audition, the work of placing it, though difficult, need not be unprofitable. This work is often compulsory upon the criminalist who receives protocols which have not been read aloud, and in which mistakes of hearing and dictation have been made. Such mistakes are considerably disturbing, and if the case is important their source and status must be inferred. This may almost always be done. Of course, strange, badly heard proper names can not be corrected, but other things can.

As regards the general treatment of auditory illusions, it is necessary, first of all, to consider their many and significant differences. In the first place, there are the varieties of good hearing. That normal and abnormal hearers vary in degree of power is well known. There are also several special conditions, causing, e. g., the so called hyper−auditive who hear more acutely than normal people. Of course, such assertions as those which cite people who can hear the noise of sulphur rubbed on the poles of quartz crystals and so on are incorrect, but it is certain that a little attention will reveal a <p 445> surprising number of people whose hearing is far acuter than that of normal individuals. Apart from children, the class is made up of musicians, of young girls, and of very nervous, excitable, and sickly persons. The musicians in fact have become so because of their ears; the young girls hear well largely because of their delicate organization and the very fine construction of their ears; and the nervous people because of their sensibility to the pain involved in loud noises. Many differences of perception among witnesses are to be explained by differences of audition, and the reality of apparent impossibilities in hearing must not be denied but must be tested under proper conditions. One of these conditions is location. The difference between hearing things in the noisy day and in the quiet night, in the roar of the city, or in the quiet of the mountains, is familiar. The influence of resonance and pitch, echo and absorption of tones, i. e., the location of the sound, is of great importance. Finally, it must not be forgotten that people's ability to hear varies with the weather. Colds reduce the power, and not a few people are influenced by temperature, atmospheric pressure, etc. These considerations show the degree in which auditory illusions can be of importance even in tests of their nature and existence. They show above all that the same object of comparison under the same circumstances must be used in every test. Otherwise much confusion inevitably results.

The presence of auditory illusions in diseases, fever, hysteria, nervousness, alcoholism and its associates, mental disturbances, hyper<ae>mia, diseases of the ear, etc., is well known, but concerns us only as pointing to the necessity of calling in the physician immediately. They have their definite characteristics and rarely leave the layman in doubt of his duty in that direction. The great difficulty comes in dealing with diseases or apparent diseases while it is still impossible to know of their existence, or where the pain is of such character that the layman does not know of its presence and thus has no ground for consulting the doctor. For example, it is well known that a large amount of ear wax in the aural passage may cause all sorts of ringing and sighing in the ear, and may even produce real hallucinations. Yet a person having an abnormal amount of ear wax may be otherwise absolutely sound. How is the need of a physician to be guessed in such a case? Again, the perforation of the drum, especially when it follows a catarrh, may cause a definite auditory illusion with regard to the sound of voices, or the illusion may be effected by the irritation of the skin in the ear passage, or <p 446> by anemia, or by a strong carotid pulse and a distention of the bloodvessels, as happens in alcoholism. Many people become abnormally sensitive to sound at the beginning of fevers. Women at the time of their climacterium hear all kinds of voices. Inasmuch as this soon stops, the abnormality and incorrectness of their audition is hard to establish. Childbirth, too, makes a difference. Old, otherwise conscientious midwives claim to have heard unborn children breathe and cry.

Examples of this sort of thing are innumerable and they teach that whenever any questionable assertion is made about a thing heard the doctor must be called in to determine whether the witness heard it under abnormal, though not diseased conditions. Again, merely accidental or habitual general excitability tends to intensify all sounds, and whether the witness under consideration was in such condition can be determined

only by the expert physician.

The illusions of hearing which completely normal people are subject to are the most difficult of all. Their number and frequency is variously estimated. The physician has nothing to do with them. The physicist, the acoustician and physiologist do not care about the criminalist's needs in this matter, and we ourselves rarely have time and opportunity to deal with it. As a result our information is very small, and no one can say how much is still undiscovered. One of my friends has called my attention to the fact that when the beats of the clock are counted during sleepiness, one too many is regularly counted. I tested this observation and my experience confirmed it. If, now, we consider how frequently the determination of time makes the whole difference in a criminal case and how easily it is possible to mistake a whole hour, we can get some notion of the importance of this illusion. Its explanation is difficult and it may be merely a single instance of a whole series of unknown auditory illusions resting on the same basis. Another and similar phenomenon is the ``double beat of the hammer." If you have an assistant strike the table with a hammer while you hold both ears with your fingers and then open them half a second or a second after the blow, you hear the blow again. And if you open and shut your ears quickly you can hear the blow several times. This is explained through the fact that a number of reflections of the sound occur in the room, and that these are perceivable only by the unfatigued ear. The explanation is unsatisfactory because the experiment is sometimes successful in the open. Taken in itself, this matter seems very theoretical and without practical value. But this kind of action may occur <p 447> automatically. It is well known that swallowing closes the Eustachian tubes for a moment, especially if done when lying down. Now, if this occurs during a blow, a shot, etc., the sound must be heard twice. Again, it may easily happen that because of the noise a man wakes up half asleep and, frightened, swallows the collected saliva; then this accident, which in itself seems unimportant, may lead to very significant testimony. Such occurrences are not infrequent.

The intensity of a sound already heard may be of considerable influence. Certain experimenters have indicated the remarkable character of slightly intensive effects of sound. If you hold a watch so far from the ear as to hear it clearly but weakly, the sound decreases until finally it is not heard at all, and after awhile it is again heard, etc. This may lead to hearing distinct sounds made up of many tones, and need not evince any great illusion with regard to the ticking of a watch. But the thing may occur also in connection with more powerful and more distant sounds, e. g., the murmur of a brook, the rush of a train, the pounding in a distant factory. Noises far removed are influenced by reflections of sound, waves of air, etc., and it is possible that all kinds of things may be heard in a completely monotonous noise. This can be easily learned by listening to the soft murmur of a distant brook at night. Given the disposition and supposing the existence of the brook unknown, it is easy to hear in its monotonous murmur, human voices, sighs, shrieks, etc.

Another remarkable observation shows that in the dark very distinct things are heard during the playing of delicate instruments, such as mouth−organs. The humming approaches and withdraws, then it comes on various sides, and finally one has the feeling that the whole room is full of humming and winging insects. And this may go on indefinitely. There is a large collection of reasons for this reduplication of monotonous sounds. Everybody knows the accord of the <ae>olian harp which consists of identical notes, and the melodies which seem to lie in the pounding of the train on the rails. This can become especially clear when one is half asleep. If ever thinking begins to be ousted by slumber, the rhythmic pound begins to dominate consciousness. Then the rhythm gets its appropriate melody which becomes progressively more intense, and if one grows suddenly wide awake one wonders why the clearly−heard music is missing. Similarly, it is often asserted that a row of travelling wild swans make pleasant chords, although each swan is able to utter <p 448> only one cry. Difference in distance and alterations in the air cause the chords.

The difficulties in distinguishing the intensity or weakness of a sound are of importance. Fechner learned from the violinist Wasilewski that he observed that a male choir of four hundred voices did not sound essentially louder than one of two hundred. At the same time one clock is not heard at a great distance, a hundred clocks are heard. One locust can not be heard eating; when 1000 eat they are heard; hence each one must make a definite noise.[1] Early authorities have already indicated how difficult it is to distinguish the number of bells

ringing together. Even musicians will often take two or three to be five or six.

Certain dispositions make some difference in this respect. The operating physician hears the low groaning of the patient after the operation without having heard his loud cries during the operation. During the operation the physician must not hear anything that is likely to disturb his work, but the low groan has simply borne in upon him. The sleeping mother often is deaf to considerable noise, but wakes up immediately when her child draws a deeper breath than usual. Millers and factory hands, travellers, etc., do not hear the pounding of their various habitual environmental noises, but they perceive the slightest call, and everybody observes the considerable murmur of the world, the sum of all distant noises, only in the silence of the night that misses it.

Illusions of direction of sound are very common. It is said that even animals are subject to them; and everybody knows how few human beings can distinguish the source and direction of street music, a rolling wagon, or a ringing bell. Even when long practice enables one to determine direction with correctness, an accidental event, perhaps the weather, especial sounds, a different grouping of individuals on the street, may result in serious mistakes. I tried to learn to judge from my office−desk whether the ring of the horse− car came from above or below. I succeeded so well that I could not understand how it was difficult not to learn the difference, and yet I failed many a time altogether in judgment. The reason for it I do not know.

All these enumerated circumstances must show how very uncertain all acoustic perceptions are, and how little they may be trusted if they are not carefully tested under similar conditions, and if−−what is most important−−they are not isolated. We are here led back

[1] Max Meyer: Zur Theorie der Ger<a:>uschempfindungen. Leipzig 1902.

<p 449> to the old principle that every observation is not proof but means of proof, and that it may be trusted only when it is confirmed by many parallel actions which are really consistent. That even after that mistakes are possible, is true, but ``after that'' is when we have done all that lies within human power.

Section 101. (4) *Illusions of Touch*.

The high standing of the sense of touch which make it in certain directions even the organ of control of the sense of sight, is well known, and Condillac's historic attempt to derive all the senses from this one is still plausible. If what is seen is to be seen accurately there is automatic resort to the confirmatory aid of the sense of touch, which apprehends what the eye has missed. Hence we find many people touching things, whose vision is not altogether reliable−− i. e., people of considerable age, children unpracticed in seeing, an uneducated people who have never learned to see quickly and comprehensively. Moreover, certain things can be determined only by touching, i. e., the fineness of papers, cloth, etc., the sharpness or pointedness of instruments, or the rawness of objects. Even when we pat a dog kindly we do so partly because we want to see whether his skin is as smooth and fine as the eye sees it; moreover, we want to test the visual impression by that of touch.

But important and reliable as the sense of touch is, it is nevertheless not to be trusted when it is the sole instrument of perception. We must never depend on the testimony of a witness based entirely on perceptions by touch, and the statements of a wounded person concerning the time, manner, etc., of his wound are unreliable unless he has also seen what he has felt. We know that most knife and bullet wounds, i. e., the most dangerous ones, are felt, in the first instance, as not very powerful blows. Blows on the extremities are not felt as such, but rather as pain, and blows on the head are regularly estimated in terms of pain, and falsely with regard to their strength. If they were powerful enough to cause unconsciousness they are said to have been very massive, but if they have not had that effect, they will be described by the most honest of witnesses as much more powerful than they actually were. Concerning the location of a wound in the back, in the side, even in the upper arm, the wounded person can give only general indications, and if he correctly indicates the seat of the wound, he has learned it later but did not know it when it occurred. According to Helmholtz, <p

450> practically all abdominal sensations are attributed to the anterior abdominal wall. Now such matters become of importance when an individual has suffered several wounds in a brawl or an assault and wants to say certainly that he got wound A when X appeared, wound B when Y struck at him, etc. These assertions are almost all false because the victim is likely to identify the pain of the moment of receiving the wound with its later painfulness. If, for example, an individual has received a rather long but shallow knife wound and a deep stab in the back, the first will cause him very considerable burning sensation, the latter only the feeling of a heavy blow. Later on, at the examination, the cut has healed and is no longer painful; the dangerous stab which may have reached the lung, causes pain and great difficulty in breathing, so that the wounded man assigns the incidence of the stab to the painful sensation of the cut, and conversely.

Various perceptions of victims on receiving a wound are remarkable, and I have persuaded a police surgeon of considerable learning and originality to collect and interpret his great mass of material. It is best done by means of tabulation, accurate description of wounds according to their place, size, form, and significance, the statement of the victim concerning his feeling at the moment of receiving the wound, the consequences of healing, and at the end explanatory observations concerning the reasons for true or incorrect sensations of the victim. As this work is to have only psychological value it is indifferent whether the victim is veracious or not. What we want to know is what people say about their perception. The true and the false will distinguish themselves automatically, the material being so rich, and the object will be to compare true subjective feelings with true subjective deeds. Perhaps it may even be possible to draw generalizations and to abstract certain rules.

There are many examples of the fact that uncontrolled touch leads to false perceptions. Modern psychophysics has pointed to a large group of false perceptions due to illusions of pressure, stabs, or other contact with the skin. The best known, and criminalistically most important experiments, are those with open compasses. Pressed on the less sensitive parts of the body, the back, the thigh, etc., they are always felt as one, although they are quite far apart. The experiments of Flournoy, again, show how difficult it is to judge weights which are not helped by the eye's appreciation of their form and appearance. Ten objects of various forms were judged by fifty <p 451> people for their weight; only one discovered that they all had the same weight.

Similarly, mere touch can not give us proper control over the organs of the body. Sully says that in bed we may voluntarily imagine that a leg has a position quite different from that it really has. Let me cite some similar examples from my ``Manual for Investigating Judges." If we take a pea between the thumb and the index finger, we feel the pea simply, although its tactile image comes to us through two fingers, i. e., double. If now we cross the third finger over the fourth and hold the pea between the ends of these two fingers, we feel it to be double because the fingers are not in their customary positions and hence give double results. From one point of view this double feeling is correct, but when we touch the pea naturally, experience helps us to feel only one pea. Another example consists in crossing the hands and turning them inward and upward, so that the left fingers turn to the left and the right fingers to the right. Here the localization of the fingers is totally lost, and if a second person points to one of the fingers without touching it, asking you to lift it, you regularly lift the analogous finger of the other hand. This shows that the tactile sense is not in a very high stage of development, since it needs, when unhelped by long experience, the assistance of the sense of sight. Perceptions through touch alone, therefore, are of small importance; inferences are made on the basis of few and more coarse characteristic impressions.

This is shown by a youthful game we used to play. It consisted of stretching certain harmless things under the table−−a soft piece of dough, a peeled, damp potato stuck on a bit of wood, a wet glove filled with sand, the spirally cut rind of a beet, etc. Whoever got one of these objects without seeing it thought he was holding some disgusting thing and threw it away. His sense of touch could present only the dampness, the coldness, and the motion, i. e., the coarsest traits of reptilian life, and the imagination built these up into a reptile and caused the consequent action. Foolish as this game seems, it is criminalistically instructive. It indicates what unbelievable illusions the sense of touch is capable of causing. To this inadequacy of the tactile imagination may be added a sort of transferability of certain touch sensations. For example, if ants are busy near my seat I

immediately feel that ants are running about under my clothes, and if I see a wound or hear it described, I often feel pain in the analogous place on my own body. That this may lead to considerable illusion in excitable witnesses is obvious. <p 452>

Finally, this dependence of the sense of touch may be supplemented by the fact that it is counted only relatively, and its value varies with the individual. We find the cellar warm in winter and cold in summer, because we only feel the difference with the outer air, and when we put one hand in hot, and the other in cold water, and then put both in tepid water one finds the tepid water cold, the other warm. The record of tactile sensations is frequent in our protocols and requires constant consideration of the sense's unreliability.

Diseased conditions are of course to be referred to the physician. I need only mention that slight poisonings by means of chloroform, morphine, atropine, daturine, decrease, and that strychnine increases the sensitivity of the touch organ.

Section 102. (5) *Illusions of the Sense of Taste*.

Illusions of taste are of importance for us only in cases of poisoning in which we want the assistance of the victim, or desire to taste the poison in question in order to determine its nature. That taste and odor are particularly difficult to get any unanimity about is an old story, and it follows that it is still more difficult clearly to understand possible illusions of these senses. That disease can cause mistaken gustatory impressions is well known. But precedent poisoning may also create illusions. Thus, observation shows that poisoning by rose−santonin (that well−known worm remedy to which children are so abnormally sensitive) causes a long−enduring, bitter taste; sub−cutaneous morphine poisoning causes illusory bitter and sour tastes. Intermittent fevers tend to cause, when there is no attack and the patient feels comparatively well, a large number of metallic, particularly coppery tastes. If this is true it may lead to unjustified suspicions of poisoning, inasmuch as the phenomena of intermittent fever are so various that they can not all be identified.

Imagination makes considerable difference here. Taine tells somewhere of a novelist, who so graphically described the poisoning of his heroine that he felt the taste of arsenic and got indigestion. This may be possible, for perhaps everybody has already learned the great influence of the false idea of the nature of a food. If some salt meat is taken to be a sweet pastry, the taste becomes disgusting because the imaginary and the actual tastes seem to be mixed. The eye has especial influence, and the story cited and denied a hundred times, that in the dark, red wine and white wine, chicken and goose, <p 453> can not be distinguished, that the going out of a cigar is not noted, etc., is true. With your eyes closed it may be possible to eat an onion instead of an apple.

Prior tastes may cause significant gustatory illusions. Hence, when assertions are made about tastes, it is always necessary to inquire at the outset what had been eaten or drunk before. Experienced housewives take this fact into consideration in setting their tables and arranging their wines. The values of the wines are considerably raised by complete illusions of taste. All in all, it must not be forgotten that the reliability of the sense of taste can not be estimated too low. The illusions are greatest especially when a thing has been tasted with a preconceived notion of its taste.

Section 103. (6) *The Illusions of the Olfactory Sense*.

Olfactory illusions are very rare in healthy people and are hence of small importance. They are frequent among the mentally diseased, are connected in most cases with sexual conditions and then are so vivid that the judge can hardly doubt the need of calling in the physician. Certain poisons tend to debauch the olfactory sense. Strychnine, e. g., tends to make it finer, morphine duller. People with weak lungs try, in most cases, to set their difficulty of breathing outside themselves and believe that they are inhaling poisoned air, coal−gas, etc. If one considers in this connection the suspiciousness which many people suffering from lung trouble often exhibit, we may explain many groundless accusations of attempted murder by stifling with poisonous or

unbreathable gas. If this typical illusion is unknown to the judge he may find no reason for calling in the physician and then−−injustice.

The largest number of olfactory illusions are due to imagination. Carpenter's frequently cited case of the officials who smelled a corpse while a coffin was being dug up, until finally the coffin was found to be empty, has many fellows. I once was making an examination of a case of arson, and on approaching the village noted a characteristic odor which is spread by burned animals or men. When we learned: that the consumed farm lay still an hour's ride from the village, the odor immediately disappeared. Again, on returning home, I thought I heard the voice of a visitor and immediately smelled her characteristic perfume, but she had not been there that day.

Such illusions are to be explained by the fact that many odors are in the air, that they are not very powerfully differentiated and <p 454> may hence be turned by means of the imagination into that one which is likely to be most obvious.

The stories told of hyper−sensitives who think they are able to smell the pole of a magnet or the chemicals melted into a glass, belong to this class. That they do so in good faith may be assumed, but to smell through melted glass is impossible. Hence it must be believed that such people have really smelled something somewhere and have given this odor this or that particular location. Something like this occurs when an odor, otherwise found pleasant, suddenly becomes disgusting and unbearable when its source is unknown. However gladly a man may eat sardines in oil he is likely to turn aside when his eyes are closed and an open can of sardines is held under his nose. Many delicate forms of cheese emit disgusting odors so long as it is not known that cheese is the source. The odor that issues from the hands after crabs have been eaten is unbearable; if, however, one bears in mind that the odor is the odor of crabs, it becomes not at all so unpleasant.

Association has much influence. For a long time I disliked to go to a market where flowers, bouquets, wreaths, etc., were kept because I smelled dead human bodies. Finally, I discovered that the odor was due to the fact that I knew most of these flowers to be such as are laid on coffins−−are smelled during interment. Again, many people find perfumes good or bad as they like or dislike the person who makes use of them, and the judgment concerning the pleasantness or unpleasantness of an odor is mainly dependent upon the pleasantness or unpleasantness of associative memories. When my son, who is naturally a vegetarian and who could never be moved to eat meat, became a doctor, I thought that he could never be brought to endure the odor of the dissecting room. It did not disturb him in the least, however, and he explained it by saying: ``I do not eat what smells like that, and I can not conceive how you can eat anything from the butcher shops where the odor is exactly like that of the dissecting room." What odor is called good or bad, ecstatic or disgusting, is purely a subjective matter and never to be the basis of a universal judgment. Statements by witnesses concerning perceptions of odor are valueless unless otherwise confirmed.

Section 104. (b) Hallucinations and Illusions.

The limits between illusions of sense and hallucinations and illusions proper can in no sense be definitely determined inasmuch <p 455> as any phenomena of the one may be applied to the other, and vice versa.[1] Most safely it may be held that the cause of illusions of sense lies in the nature of sense−organs, while the hallucinations and illusions are due to the activity of the brain. The latter are much more likely to fall within the scope of the physician than sense− illusions, but at the same time many of them have to be determined upon by the lawyer, inasmuch as they really occur to normal people or to such whose disease is just beginning so that the physician can not yet reach it. Nevertheless, whenever the lawyer finds himself face to face with a supposed illusion or hallucination he must absolutely call in the physician. For, as rarely as an ordinary illusion of sense is explicable by the rules of logic or psychology, or even by means of other knowledge or experience at the command of any educated man, so, frequently, do processes occur in cases of hallucination and illusion which require, at the very least, the physiological knowledge of the physician. Our activity must

hence be limited to the perception of the presence of hallucination or illusion; the rest is matter for the psychiatrist. Small as our concern is, it is important and difficult, for on the one hand we must not appeal to the physician about every stupid fancy or every lie a prisoner utters, and on the other hand we assume a heavy responsibility if we interpret a real hallucination or illusion as a true and real observation. To acquire knowledge of the nature of these things, therefore, can not be rigorously enough recommended.

Hallucination and illusion have been distinguished by the fact that hallucination implies no external object whatever, while in illusion objects are mistaken and misinterpreted. When one thing is taken for another, e. g., an oven for a man, the rustle of the wind for a human song, we have illusion. When no objective existence is perceived, e. g., when a man is seen to enter, a voice is heard, a touch is felt, although nothing whatever has happened, we have hallucination. Illusion is partial, hallucination complete, supplementation of an external object. There is not a correct and definite difference between illusion and hallucination inasmuch as what is present may be so remotely connected with what is perceived that it is no more than a stimulus, and thus illusion may be turned into real hallucination. One authority calls illusion the conception of an actually present external event which is perceived by the peripheral organs in the form of an idea that does not coincide with the

[1] C. Wernicke <U:>ber Halluzinationen, Ratlosigkeit, Desorientierung etc. Monatschrift f. Psychiatrie u. Neurologie, IX, 1 (1901).

<p 456> event. The mistake does not lie in the defective activity of the senses so much as in the fact that an apperceptive idea is substituted for the perceptive view. In hallucination every external event is absent, and hence, what is seen is due to a stimulation of the periphery. Some authorities believe hallucination to be caused by cramp of the sensory nerve. Others find illusions to be an externally stimulated sense−perception not corresponding to the stimulus, and still others believe it to be essentially normal. Most human beings are from time to time subject to illusions; indeed, nobody is always sober and intelligent in all his perceptions and convictions. The luminous center of our intelligent perceptions is wrapped in a cloudy half−shadow of illusion.

Sully[1] aims to distinguish the essential nature of illusion from that characterized by ordinary language. Illusion, according to him, is often used to denote mistakes which do not imply untrue perceptions. We say a man has an illusion who thinks too much of himself, or when he tells stories otherwise than as they happen because of a weakness of memory. Illusion is every form of mistake which substitutes any direct self−evident or intuitive knowledge, whether as sense−perception or as any other form.

Nowadays the cause of hallucination and illusion is sought in the over−excitement of the cerebro−spinal system. As this stimulation may be very various in its intensity and significance, from the momentary rush of blood to complete lunacy, so hallucinations and illusions may be insignificant or signs of very serious mental disturbances. When we seek the form of these phenomena, we find that all those psychical events belong to it which have not been _*purposely_ performed or lied about. When Brutus sees C<ae>sar's ghost; Macbeth, Banquo's ghost; Nicholas, his son; these are distinctly hallucinations or illusions of the same kind as those ``really and truly'' seen by our nurses. The stories of such people have no significance for the criminalist, but if a person has seen an entering thief, an escaping murderer, a bloody corpse, or some similar object of criminal law, and these are hallucinations like classical ghosts, then are we likely to be much deceived. Hoppe[2] enumerates hallucinations of apparently sound (?) people. 1. A priest tired by mental exertion, saw, while he was writing, a boy's head look over his shoulder. If he turned toward it it disappeared, if he resumed writing it reappeared. 2. ``A thoroughly intelligent''

[1] James Sully. Illusions.

[2] J, J. Hoppe. Erkl<a:>rungen des Sinnestauschungen.

<p 457> man always was seeing a skeleton. 3. Pascal, after a heavy blow, saw a fiery abyss into which he was afraid he would fall. 4. A man who had seen an enormous fire, for a long time afterward saw flames continually. 5. Numerous cases in which criminals, especially murderers, always had their victims before their eyes. 6. Justus M<o:>ser saw well−known flowers and geometrical figures very distinctly. 7. Bonnet knows a ``healthy" man who saw people, birds, etc., with open eyes. 8. A man got a wound in his left ear and for weeks afterward saw a cat. 9. A woman eighty−eight years old often saw everything covered with flowers,−−otherwise she was quite ``well."

A part of these stories seems considerably fictitious, a part applies to indubitable pathological cases, and certain of them are confirmed elsewhere. That murderers, particularly women−murderers of children, often see their victims is well known to us criminalists. And for this reason the habit of confining prisoners in a dark cell for twenty−four hours on the anniversary of a crime must be pointed to as refined and thoroughly medi<ae>val cruelty. I have repeatedly heard from people so tortured of the terror of their visions on such days of martyrdom. Cases are told of in which prisoners who were constipated had all kinds of visual and auditory hallucinations and appeared, e. g., to hear in the rustling of their straw, all sorts of words. That isolation predisposes people to such things is as well known as the fact that constipation causes a rush of blood to the head, and hence, nervous excitement. The well−known stories of robbers which are often told us by prisoners are not always the fruit of malicious invention. Probably a not insignificant portion are the result of hallucination.

Hoppe tells of a great group of hallucinations in conditions of waking and half−waking, and asserts that everybody has them and can note them if he gives his attention thereto. This may be an exaggeration, but it is true that a healthy person in any way excited or afraid may hear all kinds of things in the crackling of a fire, etc., and may see all kinds of things, in smoke, in clouds, etc. The movement of portraits and statues is particularly characteristic, especially in dim light, and under unstable emotional conditions. I own a relief by Ghiberti called the ``Rise of the Flesh," in which seven femurs dance around a corpse and sing. If, at night, I put out the lamp in my study and the moon falls on the work, the seven femurs dance as lively as may be during the time it takes my eyes to adapt themselves from the lamplight to the moonlight. Something similar <p 458> I see on an old carved dresser. The carving is so delicate that in dim light it shows tiny heads and flames after the fashion of the Catholic church pictures of ``poor souls," in purgatory. Under certain conditions of illumination the flames flicker, the heads move, and out of the fire the arms raise themselves to the clouds floating above. Now this requires no unusual excitement, simply the weary sensing of evening, when the eyes turn from prolonged uniform reading or writing to something else.[1] It has happened to me from my earliest childhood. High bodily temperature may easily cause hallucinations. Thus, marching soldiers are led to shoot at non− existing animals and apparently−approaching enemies. Uniform and fatiguing mental activity is also a source of hallucination. Fechner says that one day having performed a long experiment with the help of a stop−watch, he heard its beats through the whole evening after. So again when he was studying long series of figures he used to see them at night in the dark so distinctly that he could read them off.

Then there are illusions of touch which may be criminalistically important. A movement of air may be taken for an approaching man. A tight collar or cravat may excite the image of being stifled! Old people frequently have a sandy taste while eating,−−when this is told the thought occurs that it may be due to coarsely powdered arsenic, yet it may be merely illusion.

The slightest abnormality makes hallucinations and illusions very easy. Persons who are in great danger have all kinds of hallucinations, particularly of people. In the court of law, when witnesses who have been assaulted testify to having seen people, hallucination may often be the basis of their evidence. Hunger again, or loss of blood, gives rise to the most various hallucinations. Menstruation and h<ae>morrhoids may be the occasions of definite periodic visions, and great pain may be accompanied by hallucinations which begin with the pain, become more distinct as it increases, and disappear when it ceases.

It might seem that in this matter, also, the results are destructive and that the statements of witnesses are

untrue and unreliable. I do not assert that our valuation of these statements shall be checked from all possible directions, but I do say that much of what we have considered as true depends only on illusions in the broad sense of the word and that it is our duty before all things rigorously to test everything that underlies our researches.

[1] Cf. A. Mosso: Die Erm<u:>dung. Leipzig 1892.

<p 459> Section 105. (C) Imaginative Ideas.

Illusions of sense, hallucinations, and illusions proper taken as a group, differ from imaginative representations because the individual who has them is more or less passive and subject to the thing from which they arise, while with the latter the individual is more active and creates new images by the _*combination_ of existing or only imagined conditions. It does not matter whether these consist of the idea only, or whether they are the product of word, manuscript, picture, sculpture, music, etc. We have to deal only with their occurrence and their results. Of course there is no sharp boundary between imaginative ideas and sense−perception, etc. Many phenomena are difficult to classify and even language is uncertain in its usage. The notion ``illusion'' has indicated many a false ideal, many a product of incoherent fancy.

The activity of the imagination, taken in the ordinary sense, requires analysis first of all. According to Meinong[1] there are two kinds of imaginative images−−a generative, and a constructive kind. The first exhibits elements, the second unites them. Thus: I imagine some familiar house, then I reproduce the idea of fire (generative), now I unite these two elements, and imagine the house in question in flames (constructive). This involves several conditions.

The conditions of generation offer no difficulties. The difficulty lies in the constructive aspect of the activity, for we can imagine astonishingly little. We can not imagine ourselves in the fourth dimension, and although we have always had to make use of such quantities, we all have the idea that the quantity A represents, e. g,, a line, A<2S>, a square, A<3S>, a cube, but as soon as we have to say what image A<5S>, A<6S>, etc., represents, our mathematical language is at an end. Even twelve men or a green flame seen through red glass or two people speaking different things can barely be imagined with any clearness. We have the elements but we can not construct their compounds. This difficulty occurs also in the consideration of certain objects. Suppose we are looking at an artistically complete angel; we are always bothered by the idea that his wings are much too small to enable him to fly. If an angel constructed like a man is to be borne by his wings, they must be so gigantic as to be unreproducible by an artist. Indeed a person slightly more grubby,

[1] Phantasie u. Phantasienvorstellung. Zeitsehrift f. Philosophie u. philosophische Kritik. Vol. 95.

<p 460> and interested in anatomy, will bother, at the sight of the most beautiful statue of an angel, concerning the construction of the limbs, the wings, and their relation to the skeleton. In certain directions, therefore, the imagination is too weak to conceive an ethereal being in human form floating in the air. Further, one authority points out that we think more frequently of centaurs than of human beings with serpentine bodies, not because centaurs are more <ae>sthetic but because horses are more massive than serpents. I do not believe this to be the true explanation, for otherwise we should have had to imagine people with canine bodies, inasmuch as we see as many dogs as horses, if not more. But the fact is correct and the explanation may be that we imagine a centaur because of the appropriate size, the implied power, and because it is not a wide leap from a horseman to a centaur. In short, here also we see that the imagination prefers to work where difficulties are fewer. Thus, with the ease of imagining an object there goes its definite possibility. I know an old gentleman in A and another one in B who have never seen each other, but I can easily imagine them together, speaking, playing cards, etc., and only with difficulty can I think of them as quarreling or betting. In the _*possibility_ there is always a certain ease, and this is appropriated by the imagination.

It is significant that when others help us and we happen to find pleasure therein, we answer to very difficult

demands upon the imagination. In the opera the deviation from reality is so powerful that it seems silly to one unaccustomed to it. But we do not need the unaccustomed person. We need only to imagine the most ordinary scene in an opera, i. e., a declaration of love, sung; an aria declining it; an aria before committing suicide; a singing choir with a moral about this misfortune. Has anything even remotely like it ever been seen in real life? But we accept it quietly and find it beautiful and affecting simply because others perform it without difficulty before our eyes and we are willing to believe it possible.

The rule to be derived from all the foregoing is this. Whenever we believe a statement to be based on imagination, or to have been learned from some imaginative source, we must always connect it with its most proximate neighbors, and step by step seek out its elements and then compound them in the simplest possible form. We may, in this fashion, get perhaps at the proper content of the matter. Of course it need not yield another imaginary image. And its failure to do so would be an objection if the compound were the end of the work and were to be used in itself. But that is not the <p 461> case. All that is required is to derive a certain starting−point from the hodge−podge of uncertainties and unintelligibility. When the construction is made it must be compared with all the material at hand and tested by that material. If the two agree, and only when they agree, may it be assumed that the starting−point has been properly chosen. But not to make this construction means to feel around aimlessly, and to give up the job before it has been really begun.

Let us take the simplest possible instance of such a situation. In a bowling alley, two youths, A and B, had a lively quarrel, in which A held the ball in his hand and threatened to throw it at B's head. B, frightened, ran away, A pursued him, after a few steps threw the ball into the grass, caught B, and then gave him an easy blow with the fiat of his hand on the back of his head. B began to wabble, sank to the ground, became unconscious, and showed all the signs of a broken head (unconsciousness, vomiting, distention of the pupils, etc.). All the particular details of the event are unanimously testified to by many witnesses, non−partisan friends of A and B, and among them the parish priest. Simulation is completely excluded inasmuch as B, a simple peasant lad, certainly did not know the symptoms of brain−fever, and could not hope for any damages from the absolutely poor A. Let us now consider what the nearest facts are. The elements of the case are: B sees a heavy ball in A's hand; A threatens B with it and pursues him; B feels a blow on the head. The compounding of these elements results in the invincible assumption on B's part that A had struck him on the head with the ball. The consequence of this imaginative feeling was the development of all the phenomena that would naturally have followed if B had actually been struck on the head.

It would be wrong to say that these cases are so rare as to be useless in practice. We simply do not observe them for the reason that we take much to be real because it is confirmed reliably. More accurate examination would show that many things are merely imaginative. A large portion of the contradictions we meet in our cases is explicable by the fact that one man is the victim of his fancies and the other is not. The great number of such fancies is evinced by the circumstance that there can nowhere be found a chasm or boundary between the simplest fancies of the normal individual and the impossible imaginings of the lunatic. Every man imagines frequently the appearance of an absent friend, of a landscape he has once seen. The painter draws even the features of an absent <p 462> model; the practiced chess−master plays games without having the board before him; persons half asleep see the arrival of absentees; persons lost in the wood at night see spirits and ghosts; very nervous people see them at home, and the lunatic sees the most extraordinary and disgusting things−−all these are imaginations beginning with the events of the daily life, ending with the visions of diseased humanity. Where is the boundary, where a lacuna?

Here, as in all events of the daily life, the natural development of the extremely abnormal from the ordinary is the incontrovertible evidence for the frequency of these events.

Of course one must not judge by one's self. Whoever does not believe in the devil, and never as a child had an idea of him in mind, will never see him as an illusion. And whoever from the beginning possesses a restricted, inaccessible imagination, can never understand the other fellow who is accompanied by the creatures of his imagination. We observe this hundreds of times. We know that everybody sees a different thing in clouds,

smoke, mountain tops, ink blots, coffee stains, etc.; that everybody sees it according to the character and intensity of his imagination, and that whatever seems to be confused and unintelligible is to be explained as determined by the nature of the person who expresses or possesses it.

So in the study of any work of art. Each is the portrayal of some generality in concrete form. The concrete is understood by anybody who knows enough to recognize it. The generality can be discovered only by him who has a similar imagination, and hence each one draws a different generalization from the same work of art. This variety holds also in scientific questions. I remember how three scholars were trying to decipher hieroglyphs, when that branch of arch<ae>ology was still very young. One read the inscription as a declaration of war by a nomadic tribe, another as the acquisition of a royal bride from a foreign king; and the third as an account of the onions consumed by Jews contributing forced labor. ``Scientific'' views could hardly of themselves have made such extraordinary differences; only imagination could have driven scholars in such diverse directions.

And how little we can apprehend the imaginations of others or judge them! This is shown by the fact that we can no longer tell whether children who vivify everything in their imagination see their fancies as really alive. It is indubitable that the savage who takes his fetish to be alive, the child that endows its doll with life, would wonder if fetish and doll of themselves showed signs of <p 463> vitality−−but whether they really take them to be alive is unknown to the adult. And if we can not sympathetically apprehend the views and imaginings of our own youth, how much less possible is it so to apprehend those of other people. We have to add to this fact, moreover, the characteristic circumstance that less powerful effects must be taken into consideration. The power of imagination is much more stimulated by mild, peaceful impressions than by vigorous ones. The latter stun and disquiet the soul, while the former lead it to self−possession. The play of ideas is much more excited by mild tobacco smoke, than by the fiery column of smoking Vesuvius; the murmur of the brook is much more stimulating than the roar of the stormy sea. If the converse were true it would be far easier to observe the effects in others. We see that a great impression is at work, our attention is called to its presence, and we are then easily in the position of observing its effect in others. But the small, insignificant phenomena we observe the less, the less obvious their influence upon the imagination of others appears to be. Such small impressions pass hundreds of times without effect. For once, however, they find a congenial soul, their proper soil, and they begin to ferment. But how and when are we to observe this in others?

We rarely can tell whether a man's imagination is at work or not. Nevertheless, there are innumerable stories of what famous men did when their imagination was at work. Napoleon had to cut things to pieces. Lenau used to scrape holes in the ground. Mozart used to knot and tear table−cloth and napkins. Others used to run around; still others used to smoke, drink, whistle, etc. But not all people have these characteristics, and then we who are to judge the influence of the imagination on a witness or a criminal are certainly not present when the imagination is at work. To get some notion of the matter through witnesses is altogether too unsafe a task. Bain once justly proposed keeping the extremities quiet as a means of conquering anger. Thus it may be definitely discovered whether a man was quite angry at a given instant by finding out whether his hands and feet were quiet at the time, but such indices are not given for the activity of imagination.

Moreover, most people in whom the imagination is quite vigorously at work know nothing about it. Du Bois−Reymond says somewhere, ``I've had a few good ideas in my life, and have observed myself when I had them. They came altogether involuntarily, without my ever having thought of them.'' This I do not believe. His imagination, which was so creative, worked so easily and without <p 464> effort that he was not aware of its activity, and moreover, his fundamental ideas were so clear that everything fell into lines spontaneously without his being conscious of it later. This ``working'' of the imagination is so effortless to fortunate natures that it becomes an ordinary movement. Thus Goethe tells of an imaginary flower which broke into its elements, united again, broke again, and united in another form, etc. His story reveals one of the reasons for the false descriptions of perception. The perception is correct when made, then the imagination causes movements of ideas and the question follows which of the two was more vigorous, the perceptive or the imaginal activity? If the one was intenser, memory was correct; if the other, the recollection was erroneous. It is hence important, from the point of view of the lawyer, to study the nature and intensity of witnesses'

imagination.[1] We need only to observe the influence of imaginal movements on powerful minds in order to see clearly what influence even their weak reflection may have on ordinary people. Schopenhauer finds the chief pleasure of every work of art in imagination; and Goethe finds that no man experiences or enjoys anything without becoming productive.

Most instructive is the compilation of imaginative ideas given by H<o:>fler[2] and put together from the experiences of scholars, investigators, artists, and other important persons. For our purposes it would be better to have a number of reliable statements from other people which would show how normal individuals were led astray by their imaginations. We might then learn approximately what imaginative notions might do, and how far their limits extend. Sully calls attention to the fact that Dickens's characters were real to him and that when the novel was completed, its dramatic person<ae> became personal memories. Perhaps all imaginative people are likely to take their imaginings as actual remembered events and persons. If this happens to a witness, what trouble he may cause us!

A physician, Dr. Hadekamp, said that he used to see the flow of blood before he cut the vein open. Another physician, Dr. Schmeisser, confirms this experience. Such cases are controlled physically, the flow of blood can not be seen before the knife is removed. Yet how often, at least chronologically, do similar mistakes occur when no such control is present? There is the story of a woman who could describe so accurately symptoms which resulted from a swallowed needle, that the physicians were deceived and undertook

[1] Cf. Witasek: Zeitschrift f. Psychologie. Vol. XII. ``<U:>ber Willk<u:>rliche Vorstellungsverbindung."

[2] Psychologie. Wien u. Prag. 1897.

<p 465> operations which only served to show that the woman had merely imagined it all. A similar case is that of a man who believed himself to have swallowed his false teeth. He even had serious feelings of choking which immediately disappeared on the discovery of the teeth under his night−table. A prominent oculist told me that he had once treated for some time a famous scholar because the latter so accurately described a weakening of the retina that the physician, in spite of his objective discoveries, was deceived and learned his mistake only when it appeared that the great scholar fortunately had been made game of by his own imagination. Maudsley tells how Baron von Swieten once saw burst a rotten corpse of a dog, and, for years after, saw the same thing whenever he came to the same place. Many people, Goethe, Newton, Shelley, William Black, and others, were able completely to visualize past images. Fechner tells of a man who claimed voluntarily to excite anywhere on his skin the feeling of pressure, heat, and cold, but not of cut, prick or bruise, because such imaginations tended to endure a long time. There is the story of another man who had a three days' pain in his finger because he had seen his child crush an analogous finger.

Abercrombie tells of an otherwise very excitable person who believed in the reality of the luck that a fortune−teller had predicted for him, and some authorities hold that practically everybody who eagerly awaits a friend hears his step in every sound. Hoppe's observation that pruritus vulv<ae> excites in imaginative women the illusion of being raped is of considerable importance, and we criminalists must watch for it in certain cases. Lieber tells of a colored preacher who so vividly painted the tortures in hell that he himself could merely cry and grunt for minutes at a time. M<u:>ller cites a lady who was permitted to smell from an empty bottle and who regularly lost consciousness when she was told that the bottle contained laughing gas. Women often assert that when about to change their homes they often see the new residence in dreams just as it really appears later on. Then there is a story of a man blind for fourteen years who nevertheless saw the faces of acquaintances and was so troubled thereby that the famous Graefe severed his optic nerve and so released him from his imagination.

Taine describes the splendid scene in which Balzac once told Mad. de Girardin that he intended to give Sandeau a horse. He did not do so, but talked so much about it that he used to ask Sandeau how the horse was. Taine comments that it is clear that the starting point of such an illusion is a voluntary fiction. The person <p

466> in question knows it as such in the beginning but forgets it at the end. Such false memories are numerous among barbarous peoples and among raw, untrained, and childish minds. They see a simple fact; the more they think of it the more they see in it; they magnify and decorate it with environing circumstances, and finally, unite all the details into a whole in memory. Then they are unable to distinguish what is true from what is not. Most legends develop in this way. A peasant assured Taine that he saw his sister's soul on the day she died,−−though it was really the light of a brandy bottle in the sunset.

In conclusion, I want to cite a case I have already mentioned, which seems to me significant. As student I visited during vacation a village, one of whose young peasant inhabitants had gone to town for the first time in his life. He was my vacation play−mate from earliest childhood, and known to me as absolutely devoted to the truth. When he returned from his visit, he told me of the wonders of the city, the climax of which was the menagerie he had visited. He described what he saw very well, but also said that he had seen a battle between an anaconda and a lion. The serpent swallowed the lion and then many Moors came and killed the serpent. As was immediately to be inferred and as I verified on my return, this battle was to be seen only on the advertising posters which are hung in front of every menagerie. The lad's imagination had been so excited by what he had seen that day that the real and the imagined were thoroughly interfused. How often may this happen to our witnesses!

If the notion of imagination is to be limited to the activity of representation, we must class under it the premonitions and forewarnings which are of influence not only among the uneducated. Inasmuch as reliable observations, not put together a posteriori, are lacking, nothing exact can be said about them. That innumerable assertions and a semi−scientific literature about the matter exists, is generally familiar. And it is undeniable that predictions, premonitions, etc., may be very vivid, and have considerable somatic influence. Thus, prophecy of approaching death, certain threats or knowledge of the fact that an individual's death is being prayed for, etc., may have deadly effect on excited people. The latter superstition especially, has considerable influence. Praying for death, etc., is aboriginal. It has been traced historically into the twelfth century and is made use of today. Twelve years ago I was told of a case in which an old lady was killed because an enemy of hers had the <p 467> death−mass read for her. The old lady simply died of fright. In some degree we must pay attention to even such apparently remote questions.

(d) *Misunderstandings*.

Section 106. (I) Verbal Misunderstandings.[1]

Here too it is not possible to draw an absolutely definite boundary between acoustic illusions and misunderstandings. Verbally we may say that the former occur when the mistake, at least in its main characteristic, is due to the aural mechanism. The latter is intended when there is a mistake in the comprehension of a word or of a sentence. In this case the ear has acted efficiently, but the mind did not know how to handle what had been heard and so supplements it by something else in connection with matter more or less senseless. Hence, misunderstandings are so frequent with foreign words. Compare the singing of immigrant school children, ``My can't three teas of tea" for ``My country 'tis of thee," or ``Pas de lieu Rhone que nous" with ``Paddle your own canoe."[2]

The question of misunderstandings, their development and solution, is of great importance legally, since not only witnesses but clerks and secretaries are subject to them. If they are undiscovered they lead to dangerous mistakes, and their discovery causes great trouble in getting at the correct solution.[3] The determination of texts requires not only effort but also psychological knowledge and the capacity of putting one's self in the place of him who has committed the error. To question him may often be impossible because of the distance, and may be useless because he no longer knows what he said or wanted to say. When we consider what a tremendous amount of work classical philologists, etc., have to put into the determination of the proper form of some misspelled word, we can guess how needful it is to have the textual form of a protocol absolutely correct. The innocence or guilt of a human being may depend upon a misspelled syllable. Now, to determine

the proper and correct character of the text is as a rule difficult, and in most cases impossible. Whether a witness or the secretary has misunderstood, makes no difference in the nature of the work. Its importance remains unaffected, but in the latter case the examining justice, in so far as he correctly

[1] Many omissions have been necessitated by the feet that no English equivalents for the German examples could be found. [Translator.]

[2] Cf. S. Freud: Psychopathologie des Alltagsleben

[3] Cited by James, Psychology, Buefer Course.

<p 468> remembers what he has heard, may avoid error. The mistakes of the secretaries may in any event be reduced to a minimum if all protocols are read immediately, and not by the secretary but by the examining judge himself. If the writer reads them he makes the same mistakes, and only a very intelligent witness will perceive them and call attention to them. Unless it so happens the mistake remains.

I cite a few of the errors that I have observed. From a protocol with the suspect: ``On the twelfth of the month I left Marie Tomizil" (instead of, ``my domicile"). Instead of ``irrelevant,"−−``her elephant." Very often words are written in, which the dictator only says by the way; e. g., ``come in," ``go on," ``hurry up," ``look out," etc. If such words get into the text at all it is difficult to puzzle out how they got in. How easily and frequently people misunderstand is shown by the oath they take. Hardly a day passes on which at least one witness does not say some absolute nonsense while repeating it.

The discovery of such errors and the substitution of what is correct brings us back to the old rule that the mere study of our own cases can not teach us anything, since the field of view is too narrow, the material too uniform, and the stimulation too light. Other disciplines must be studied and examples from the daily life must be sought. Goethe, in particular, can teach us here. In his little monograph, ``H<o:>r−, Schreib− and Druckfehler," he first tells that he had discovered the most curious mistakes in hearing when he reread dictated letters, mistakes which would have caused great difficulty if not immediately looked after. The only means for the solution of these errors is, he says, ``to read the matter aloud, get thoroughly into its meaning and repeat the unintelligible word so long that the right one occurs in the flow of speech. Nobody hears all that he knows, nobody is conscious of all that he senses, is able to imagine, or to think. Persons who have never been to school tend to turn into German all Latin and Greek expressions. The same thing happens just as much with words from foreign languages whose pronunciation is unknown to the writer . . . and in dictation it occurs that a hearer sets his inner inclination, passion, and need in the place of the word he has heard, and substitutes for it the name of some loved person, or some much desired good morsel." A better device for the detection of errors than that suggested by Goethe cannot be found, but the protocol or whatever else it may be must be _*read_; otherwise nothing helps. Many mistakes are due, as <p 469> M<u:>nsterberg points out, to the fact that the word is seen for just an instant, and it is easy to misread a word so seen if some similar word had been heard or seen just before. The most senseless corruptions of text occur often, and it seems extraordinary how they may be overlooked. Andresen points out that the reason for all popular explanations is the consciousness of language which struggles against allowing any name to be an empty sound, and still more, strives to give each term a separate meaning and an indubitable intelligibility. The human mind acts here instinctively and na<i:>vely without any reflection, and is determined by feeling or accident. Then it makes all kinds of transformations of foreign words.

This fits with the analogous observation that a group of Catholic patron saints depend for their character on their names. Santa Clara makes clear vision, St. Lucy sounds like lucida, and is the saint of the blind; St. Mamertus is analogous to mamma, the feminine breast, and is the patron saint of nurses and nursing women. Instructive substitutions are Jack Spear, for Shakespeare, Apolda for Apollo; Great victory at le Mans, for Great victory at Lehmanns; ``plaster depot," for ``place de Repos."

Andresen warns us against going too far in analysis. Exaggerations are easy, particularly when we want to get at the source of a misunderstanding because of the illegibility of the style. Our task consists, first of all, in getting at the correctness of what has been said or written, otherwise we have nothing whatever to go by. Only when that is quite impossible may we assume misunderstandings and seek them out. The procedure then must be necessarily linguistic and psychological and requires the consultation of experts in both fields. Certain instructive misunderstandings of the most obvious sort occur when the half−educated drop their dialect, or thoroughly educated people alter the dialectical expressions and try to translate them into high German.

It is frequently important to understand the curious transposition in meaning which foreign words get, e. g., commode, fidel, and famos. A commode gentleman means in German, a pliable person; and a fidel lad is not a loyal soul, but a merry, pleasure− seeking one; famos−−originally ``famous,"−−means expensive or pleasant.

It may be not unimportant to understand how names are altered. Thus, I know a man who curiously enough was called Kammerdiener, whose father was an immigrant Italian called Comadina, and I know two old men, brothers, who lived in different parts of the <p 470> country, one of whom was called Joseph Waldhauser, the other Leopold Balthasar. In the course of the generation the name had so completely changed that it is impossible to say which is correct. Again, a family bearing the name Theobald is of French origin and used really to be called Du Val. In Steiermark, which had been over−run with Turks two hundred years ago, there are many family names of Turkish origin. Thus Hasen<o:>hrl may come from Hassan <O:>ri; Salata from Saladin; Mullenbock, from Mullei Beg; Sullman from Soliman.

Section 107. (2) *Other Misunderstandings*.

The quantitative method of modern psychophysics may lead to an exact experimental determination of such false conceptions and misunderstandings as those indicated above, but it is still too young to have any practical value. It is vitiated by the fact that it requires artificial conditions and that the results have reference to artificial conditions. Wundt has tried to simplify apparatus, and to bring experiment into connection with real life. But there is still a far cry from the psychological laboratory to the business of life. With regard to misunderstandings the case is certainly so. Most occur when we do not hear distinctly what another person is saying and supplement it with our own notions. Here the misunderstanding is in no sense linguistic, for words do not receive a false meaning. The misunderstanding lies in the failure to comprehend the sense of what we have heard, and the substitution of incorrect interpretations. Sometimes we may quite understand an orator without having heard every word by simply adding these interpretations, but the correctness of the additions is always questionable, and not only nature and training, but momentary conditions and personal attitude, make a considerable difference. The worst thing about the matter is the fact that nobody is likely to be aware that he has made any interpretations. Yet we do so not only in listening, but in looking. I see on a roof in the distance four white balls about the nature of which I am uncertain. While looking, I observe that one of the balls stretches out head and tail, flaps its wings, etc., and I immediately think, ``Oh, those are four pigeons." Now it may be true that they are four pigeons, but what justification had I for such an interpretation and generalization from the action of one pigeon? In this instance, no doubt, it would have been difficult for me to make a mistake, but there are many cases which are not so obvious and where the interpretation is nevertheless made, and then the misunderstanding <p 471> is ready to hand. Once my wife and I saw from our seats in the car a chimney−sweep who stood in a railroad station. As he bent over, looking for a lost coin, my very myopic wife cried out, ``Look at the beautiful Newfoundland dog." Now this is a conceivable illusion for a short−sighted individual, but on what basis could my good lady interpret what she saw into the judgment that it was a Newfoundland dog, and a beautiful one at that? Taine illustrates a similar process with the story of a child who asked why his mother had put on a white dress. He was told that his mother was going to a party and had to put on her holiday clothes for that purpose. After that, whenever the child saw anybody in holiday attire, green or red or any other color, it cried out,−−``Oh, you have a white dress on!" We adults do exactly the same thing. As Meinong says so well, we confuse identity with agreement. This proposition would save us from a great many mistakes and misunderstandings if kept in mind.

How frequently and hastily we build things out is shown by a simple but psychologically important game. Ask anybody at hand how the four and the six look on his watch, and let him draw it. Everybody calmly draws, IV and VI, but if you look at your watch you will find that the four looks so, IIII, and that there is no six. This raises the involuntary question, ``Now what do we see when we look at the watch if we do not see the figures?" and the further question, ``Do we make such beautiful mistakes with all things?"

I assert that only that has been reliably seen which has been drawn. My father asked my drawing teacher to teach me not to draw but to observe. And my teacher, instead of giving me copies, followed the instruction by giving me first one domino, then two, then three, one upon the other, then a match box, a book, a candlestick, etc. And even today, I know accurately only those objects in the household which I had drawn. Yet frequently we demand of our witnesses minutely accurate descriptions of things they had seen only once, and hastily at that.

And even if the thing has been seen frequently, local and temporal problems may make great difficulties. With regard to the first class of problems, Exner[1] cites the example of his journey from Gmunden to Vienna in which, because of a sharp curve in the road, he saw everything at Lambach reversed, although the whole stretch of road was familiar to him. The railroad trains, the public buildings, the rivers, all the notable places seemed to lie on the wrong side. This

[1] S. Exner: Entwurf, etc.

<p 472> is particularly characteristic if a city is entered, especially at night, through a railroad terminal, and the locomotive is attached to the rear of the train. In the daily life the alteration of objects by locations is familiar. How different a landscape seems at night or in winter, although it has been observed hundreds of times during the day or in summer. It is good to look around frequently on the road, particularly at cross−roads, if the way back is to be kept in mind. Even the starting point may have a disturbing effect on the sense of place. For example, if you have traveled numerous times on the train from A to B, and for once you start your journey from C, which is beyond A, the familiar stretch from A to B looks quite different and may even become unrecognizable. The estimation of time may exercise considerable influence on such and similar local effects. Under most circumstances we tend, as is known, to reduce subjectively great time−spans, and hence, when more time than customary is required by an event, this becomes subjectively smaller, not only for the whole event but also for each of its parts. In this way what formerly seemed to extend through an apparently long period seems now to be compressed into a shorter one. Then everything appears too soon and adds to the foreign aspect of the matter.

The case is similar for time−differences. Uphues[1] cites an example: ``If a person has not heard a bell or anything else for some time and then hears it again, the question whether the object existed in the interval does not arise. It is recognized again and that is enough." Certainly it is enough for us, but whether the thing is true, whether really the same phenomena or only similar ones have been noted, is another question rarely asked. If the man or the bell is the same that we now perceive anew, the inference is involuntarily drawn that they must have persisted, but we eliminate altogether the lapse of time and suppose unconsciously that the entity in question must have been on the spot through the whole period. One needs only to observe how quickly witnesses tend to identify objects presented for identification: e. g. knives, letters, purses, etc. To receive for identification and to say yes, is often the work of an instant. The witness argues, quite unconsciously, in this fashion: ``I have given the judge only one clew (perhaps different from the one in question), now here again is a clew, hence, it must be the one I gave him." That the matter may have changed, that there has been some confusion, that perhaps

[1] Die Wahrnehmung und Empfinding. Leipzig 1888.

<p 473> other witnesses have given similar things, is not at all considered. Here again we have to beware of confusing of identities with agreements.

Finally, we must consider fatigue and other conditions of excitation. Everybody knows how things read late at night seem absolute nonsense, and become simple and obvious the next morning. In the same way, we may take a thing to be thus and so while tired in the evening, and in the morning see our notion to be a coarse misunderstanding. Hoppe tells of a hospital interne who became so excited and tired through frequent calls that he heard the tick− tack of his watch as ``Oh−doc−tor.'' A witness who has been subjected to a prolonged and fatiguing examination falls into a similar condition and knows at the end much less than at the beginning. Finally, he altogether misunderstands the questions put to him. The situation becomes still worse when the defendant has been so subjected to examination, and becomes involved, because of fatigue, etc., in the famous ``contradictions.'' If ``convincing contradictions'' occur at the end of a long examination of a witness or a defendant, it is well to find out how long the examination took. If it took much time the contradictions mean little.

The same phenomena of fatigue may even lead to suspicion of negligence. Doctors, trained nurses, nursery maids, young mothers, etc., who became guilty of ``negligence'' of invalids and children have, in many instances, merely ``misunderstood'' because of great fatigue. It is for this reason that the numerous sad cases occur in which machine−tenders, switch−tenders, etc., are punished for negligence. If a man of this class, year after year, serves twenty−three hours, then rests seven hours, then serves twenty−three hours again, etc., he is inevitably overtaken by fatigue and nervous relaxation in which signals, warnings, calls, etc., are simply misunderstood. Statistics tend to show that the largest number of accidents occur at the end of a period of service, i. e., at the time of greatest fatigue. But even if this were not the case some reference must be made to chronic fatigue. If a man gets only seven hours' rest after intense labor, part of the fatigue−elements must have remained. They accumulate in time, finally they summate, and exercise their influence even at the beginning of the service. Socialists complain justly about this matter. The most responsible positions are occupied by chronically fatigued individuals, and when nature extorts her rights we punish the helpless men.

The case is the same with people who have much to do with <p 474> money−−tax, post, bank, and treasury officials, who are obliged to attend rigorously to monotonous work−−the reception and distribution of money, easily grow tired. Men of experience in this profession have assured me that they often, when fatigued, take money, count it, sign a receipt and then−−return the money to the person who brought it. Fortunately they recognize their mistake in the astonishment of the receiver. If, however, they do not recognize it, or the receiver is sly enough calmly to walk off with the money, if the sum is great and restitution not easily possible, and if, moreover, the official happens to be in the bad graces of his superiors, he does not have much chance in the prosecution for embezzlement, which is more likely than not to be begun against him.[1] Any affection, any stimulus, any fatigue may tend to make people passive, and hence, less able to defend themselves.

A well known Berlin psychiatrist tells the following story: ``When I was still an apprentice in an asylum, I always carried the keys of the cells with me. One day I went to the opera, and had a seat in the parquette. Between the acts I went into the corridor. On returning I made a mistake, and saw before me a door which had the same kind of lock as the cell−doors in the asylum, stuck my hand into my pocket, took out my key−−which fitted, and found myself suddenly in a loge. Now would it not be possible in this way, purely by reflex action, to turn into a burglar?'' Of course we should hardly believe a known burglar if he were to tell us such a story.

(e) *The Lie*. Section 108. (I) I. General Considerations.

In a certain sense a large part of the criminalist's work is nothing more than a battle against lies. He has to discover the truth and must fight the opposite. He meets this opposite at every step. The accused, often one who has confessed completely, many of the witnesses, try to get advantage of him, and frequently he has to struggle with himself when he perceives that he is working in a direction which he can not completely justify. Utterly to vanquish the lie, particularly in our work, is of course, impossible, and to describe its nature exhaustively is to write a natural history of mankind. We must limit ourselves to the consideration of a

definite number of means, great and small, which will make our work easier,

[1] Cf. Lohsing in H. Gross's Archiv VII, 331.

<p 475> will warn us of the presence of deception, and will prevent its playing a part. I have attempted to compile forms of it according to intent, and will here add a few words.[1]

That by the lie is meant the intentional deliverance of a conscious untruth for the purpose of deception is as familiar as the variety of opinion concerning the permissibility of so−called necessary lies, of the pious, of the pedagogic, and the conventional. We have to assume here the standpoint of absolute rigorism, and to say with Kant,[2] ``The lie in its mere form is man's crime against his own nature, and is a vice which must make a man disreputable in his own eyes.'' We can not actually think of a single case in which we find any ground for lying. For we lawyers need have no pedagogical duties, nor are we compelled to teach people manners, and a situation in which we may save ourselves by lying is unthinkable. Of course, we will not speak all we know; indeed, a proper silence is a sign of a good criminalist, but we need never lie. The beginner must especially learn that the ``good intention'' to serve the case and the so−called excusing ``eagerness to do one's duty,'' by which little lies are sometimes justified, have absolutely no worth. An incidental word as if the accomplice had confessed; an expression intending to convey that you know more than you do; a perversion of some earlier statement of the witness, and similar ``permissible tricks,'' can not be cheaper than the cheapest things. Their use results only in one's own shame, and if they fail, the defense has the advantage. The lost ground can never be regained.[3]

Nor is it permissible to lie by gestures and actions any more than by words. These, indeed, are dangerous, because a movement of the hand, a reaching for the bell, a sudden rising, may be very effective under circumstances. They easily indicate that the judge knows more about the matter than he really does, or suggest that his information is greater, etc. They make the witness or defendant think that the judge is already certain about the nature of the case; that he has resolved upon important measures, and other such things. Now movements of this kind are not recorded, and in case the denial of blame is not serious, a young criminalist allows himself easily to be misled by his desire for efficiency. Even accident may help. When I was examining justice I had to hear the testimony of a rather weak−minded lad, who was suspected of having stolen and hidden a large sum of money. The lad firmly and cleverly denied

[1] Cf. my Manual, ``When the witness is unwilling to tell the truth.''

[2] Kant : ``<U:>ber ein vermeintliches Recht, aus Menschenliebe zu l<u:>gen.''

[3] A sentence is here omitted. [Translator.]

<p 476> his guilt. During the examination a comrade entered who had something official to tell me, and inasmuch as I was in the midst of dictation he wanted to wait until the end of the sentence. Happening to see two swords that had just been brought from a student duel, he took one in his hand and examined the hilt, the point and the blade. The defendant hardly saw this action before he got frightened, raised his hands, ran to the sword−examiner, crying ``I confess, I confess! I took the money and hid it in the hollow hickory tree.''

This event was rather funny. Another, however, led, I will not say to self−reproach, but to considerable disquiet on my part. A man was suspected of having killed his two small children. As the bodies were not found I undertook a careful search of his home, of the oven, of the cellar, the drains, etc. In the latter we found a great deal of animal entrails, apparently rabbits. As at the time of this discovery I had no notion of where they belonged, I took them, and in the meantime had them preserved in alcohol. The great glass receptacle which contained them stood on my writing table when I had the accused brought in to answer certain questions about one or two suspicious matters we had discovered. He looked anxiously at the glass, and said suddenly, ``Since you have got it all, I must confess.'' Almost reflexly I asked, ``Where are the corpses?'' and

he immediately answered that he had hidden them in the environs of the city, where they were found. Clearly, the glass containing the intestines had led him to the notion that the bodies were found and in part preserved here, and when I asked him where they were he did not observe how illogical the question would be if the bodies had really been found. The whole thing was a matter of accident, but I still have the feeling that the confession was not properly obtained; that I should have thought of the effect of the glass and should have provided against it before the accused was brought before me.

In the daily life such an open procedure is, of course, impossible, and if the circumstances were to be taken for what they seem we should frequently make mistakes. Everybody knows, e. g., how very few happy marriages there are. But how do we know it? Only because the fortune of close observation always indicates that the relation is in no way so happy as one would like it to be. And externally? Has anybody ever seen in even half−educated circles a street quarrel between husband and wife? How well−mannered they are in society, and how little they show their disinclination for <p 477> each other. And all this is a lie in word and deed, and when we have to deal with it in a criminal case we judge according to the purely external things that we and others have observed. Social reasons, deference for public opinion which must often be deceived, the feeling of duty toward children, not infrequently compel deception of the world. The number of fortunate marriages is mainly overestimated.[1]

We see the same thing with regard to property, the attitude of parents and children, the relation between superiors and inferiors, even in the condition of health,−−conduct in all these cases does not reveal the true state of affairs. One after another, people are fooled, until finally the world believes what it is told and the court hears the belief sworn to as absolute truth. It is, perhaps, not too much to say that we are far more deceived by appearances than by words. Public opinion should least of all impose on us. And yet it is through public opinion that we learn the external relations of the people who come before us. It is called vox populi and is really rot. The phrases, ``they say,'' ``everybody knows,'' ``nobody doubts,'' ``as most neighbors agree,'' and however else these seeds of dishonesty and slander may be designated−−all these phrases must disappear from our papers and procedure. They indicate only appearances−−only what people _*wanted_ to have seen. They do not reveal the real and the hidden. Law too frequently makes normative use of the maxim that the bad world says it and the good one believes it. It even constructs its judgments thereby.

Not infrequently the uttered lies must be supported by actions. It is well−known that we seem merry, angry, or friendly only when we excite these feelings by certain gestures, imitations and physical attitudes. Anger is not easily simulated with an unclenched fist, immovable feet, and uncontracted brow. These gestures are required for the appearance of real anger. And how very real it becomes, and how very real all other emotions become because of the appropriate gestures and actions, is familiar. We learn, hence, that the earnest assertor of his innocence finally begins to believe in it a little, or altogether. And lying witnesses still more frequently begin to hold their assertions to be true. As these people do not show the common marks of the lie their treatment is extraordinarily difficult.

It is, perhaps, right to accuse our age of especial inclination for that far−reaching lie which makes its perpetrator believe in his own

[1] A. Moll: Die kontr<a:>re Sexualempfindung. Berlin 1893.

<p 478> creation. Kiefer[1] cites examples of such ``self−deceiving liars.'' What drives one to despair is the fact that these people are such clever liars that they make a game of the business. It is a piece of luck that these lies, like every lie, betray themselves by the characteristic intensity with which they seek to assume the appearance of truth. This important mark of the lie can not be too clearly indicated. The number and vigor of lies must show that we more frequently fail to think of their possibility than if they did not exist at all. A long time ago I read an apparently simple story which has helped me frequently in my criminalistic work. Karl was dining with his parents and two cousins, and after dinner said at school, ``There were fourteen of us at table to−day.'' ``How is it possible?'' ``Karl has lied again.'' How frequently does an event seem inexplicable,

mysterious, puzzling. But if you think that here perhaps, ``Karl has lied again," you may be led to more accurate observation and hence, to the discovery of some hiatus by means of which the whole affair may be cleared up.

But frequently contradictions are still more simply explained by the fact that they are not contradictions, and by the fact that we see them as such through inadequate comprehension of what has been said, and ignorance of the conditions. We often pay too much attention to lies and contradictions. There is the prejudice that the accused is really the criminal, and that moves us to give unjustified reasons for little accidental facts, which lead afterwards to apparent contradictions. This habit is very old.

If we inquire when the lie has least influence on mankind we find it to be under emotional stress, especially during anger, joy, fear, and on the death−bed.[2] We all know of various cases in which a man, angry at the betrayal of an accomplice, happy over approaching release, or terrified by the likelihood of arrest, etc., suddenly declares, ``Now I am going to tell the truth." And this is a typical form which introduces the subsequent confession. As a rule the resolution to tell the truth does not last long. If the emotion passes, the confession is regretted, and much thought is given to the withdrawal of a part of the confession. If the protocols concerning the matter are very long this regret is easily observable toward the end.

That it is not easy to lie during intoxication is well known.[3] What

[1] E. Kiefer: Die L<u:>ge u. der Irrtum vor Gericht. Beiblatt der ``Magdeburgischen Zeitung," Nos. 17, 18, 19. 1895

[2] Cf. ``Manual," ``Die Aussage Sterbender."

[3] Cf. N<a:>cke: Zeugenaussage in Akohol. Gross's Archiv. XIII, 177 and H. Gross, I 337.

<p 479> is said on the death−bed may always, especially if the confessor is positively religious, be taken to be true. It is known that under such circumstances the consciousness of even mentally disturbed people and idiots becomes remarkably clear, and very often astonishing illuminations result. If the mind of the dying be already clouded it is never difficult to determine the fact, inasmuch as particularly such confessions are distinguished by the great simplicity and clearness of the very few words used.

Section 109.(2) *The Pathoformic lie*.

As in many other forms of human expression, there is a stage in the telling of lies where the normal condition has passed and the diseased one has not yet begun. The extreme limit on the one side is the harmless story−teller, the hunter, the tourist, the student, the lieutenant,−−all of whom boast a little; on the other side there is the completely insane paralytic who tells about his millions and his monstrous achievements. The characteristic pseudologia phantastica, the lie of advanced hysteria, in which people write anonymous letters and send messages to themselves, to their servants, to high officials and to clergy, in order to cast suspicion on them, are all diseased. The characteristic lie of the epileptics, and perhaps also, the lies of people who are close to the idiocy of old age, mixes up what has been experienced, read and told, and represents it as the experience of the speaker.[1]

Still there is a class of people who can not be shown to be in any sense diseased, and who still lie in such a fashion that they can not be well. The development of such lies may probably be best assigned to progressive habituation. People who commit these falsehoods may be people of talent, and, as Goethe says of himself, may have ``desire to fabulate." Most of them are people, I will not say who are desirous of honor, but who are still so endowed that they would be glad to play some grand part and are eager to push their own personality into the foreground. If they do not succeed in the daily life, they try to convince themselves and others by progressively broader stories that they really hold a prominent position. I had and still have opportunity to

study accurately several well−developed types of these people. They not only have in common the fact that they lie, they also have common themes. They tell how important

[1] Delbr<u:>ck: De pathologische L<u:>ge, etc. Stuttgart 1891. ``Manual," ``Das pathoforme L<u:>gen.

<p 480> personages asked their advice, sought their company and honored them. They suggest their great influence, are eager to grant their patronage and protection, suggest their great intimacy with persons of high position, exaggerate when they speak of their property, their achievements, and their work, and broadly deny all events in which they are set at a disadvantage. The thing by which they are to be distinguished from ordinary ``story−tellers," and which defines what is essentially pathoformic in them, is the fact that they lie without considering that the untrue is discovered immediately, or very soon. Thus they will tell somebody that he has to thank their patronage for this or that, although the person in question knows the case to be absolutely different. Or again, they tell somebody of an achievement of theirs and the man happens to have been closely concerned with that particular work and is able to estimate properly their relation to it. Again they promise things which the auditor knows they can not perform, and they boast of their wealth although at least one auditor knows its amount accurately. If their stories are objected to they have some extraordinarily unskilful explanation, which again indicates the pathoformic character of their minds. Their lies most resemble those of pregnant women, or women lying−in, also that particular form of lie which prostitutes seem typically addicted to, and which are cited by Carlier, Lombroso, Ferrero, as representative of them, and as a professional mark of identification. I also suspect that the essentially pathoformic lie has some relation to sex, perhaps to perversity or impotence, or exaggerated sexual impulse. And I believe that it occurs more frequently than is supposed, although it is easily known in even its slightly developed stages. I once believed that the pathoformic lie was not of great importance in our work, because on the one hand, it is most complete and distinct when it deals with the person of the speaker, and on the other it is so characteristic that it must be recognized without fail by anybody who has had the slightest experience with it. But since, I have noticed that the pathoformic lie plays an enormous part in the work of the criminalist and deserves full consideration.

TOPIC IV. ISOLATED SPECIAL CONDITIONS.

Section 110. (a) Sleep and Dream.

If a phenomenon occurs frequently, its frequency must have a certain relation to its importance to the criminalist. Hence, sleep <p 481> and dream must in any event be of great influence upon our task. As we rarely hear them mentioned, we have underestimated their significance. The literature dealing with them is comparatively rich.[1]

The physician is to be called in not only when we are dealing with conditions of sleep and dream which are in the least diseased, i. e., abnormally intense sleepiness, sleep−walking, hallucinatory dreams, etc., but also when the physiological side of sleep and dream are in question, e. g., the need of sleep, the effect of insomnia, of normal sleepiness, etc. The criminalist must study also these things in order to know the kind of situation he is facing and when he is to call in the physician for assistance. Ignorance of the matter means spoiling a case by unskilful interrogation and neglect of the most important things. At the very least, it makes the work essentially more difficult.

But in many cases the criminalist must act alone since in those cases there is neither disease nor a physiological condition by way of explanation but merely a simple fact of the daily life which any educated layman must deal with for himself. Suppose, e. g., we are studying the influence of a dream upon our emotions. It has been shown that frequently one may spend a whole day under the influence of a dream, that one's attitude is happy and merry as if something pleasant had been learned, or one is cross, afraid, excited, as if something unhappy had happened. The reason and source of these attitudes is frequently a pleasant or unpleasant dream, and sometimes this may be at work subconsciously and unremembered. We have already shown that so−called errors of memory are to a large extent attributable to dreams.[2]

This effect of the dream may be of significance in women, excitable men, and especially in children. There are children who consider their dreams as real experiences, and women who are unable to distinguish between dreams and real experience, while the senile and aged can not distinguish dreams and memories because their memories and the power to distinguish have become weakened.[3]

I know of an eight−year−old child who after dinner had gone looking for chestnuts with a man. In the evening it came home happy but woke up in tears and confessed that the man in question had

[1] Cf. S. Freud: Traumdeutung. Leipzig 1900 (for the complete bibliography). B. Sidis: An Experimental Study of Sleep: Journal of Abnormal Psychology.

[2] Maudsley. Physiology and Pathology of the Mind.

[3] Cf. Altmann in H. Gross's Archiv. I, 261.

<p 482> raped it. Another case concerns a great burglary which had caused its victims considerable excitement. The second day after the event the ten or twelve−year−old daughter of the victim asserted with certainty that she had recognized the son of a neighbor among the thieves. In both cases there were serious legal steps taken against the suspects, and in both cases the children finally admitted, after much thinking, that they had possibly dreamed the whole matter of their complaints.

The character−mark of such cases is the fact that the children do not make their assertions immediately, but after one or two nights have passed. Hence, whenever this occurs one must entertain at least the suspicion that reality and dreams have been confused.

Similarly, Taine narrates that Baillarger once dreamed that he had been made director of a certain journal, and believed it so definitely that he told it to a number of people. Then there is the familiar dream of Julius Scaliger. Leibnitz writes that Scaliger had praised in verse the famous men of Verona. In dream he saw a certain Brugnolus who complained that he had been forgotten. Later Scaliger's son Joseph discovered that there really had been a Brugnolus who had distinguished himself as grammarian and critic. Obviously Scaliger senior had once known, and had completely forgotten about him. In this case the dream had been just a refreshing of the memory. Such a dream may be of importance, but is unreliable and must be dealt with carefully.

To get at a point of departure concerning the nature of the sleep and the dreams of any given person, we may classify them with reference to the following propositions:[1] 1. The vividness of dreams increases with their frequency. 2. The lighter the sleep the more frequent the dreams. 3. Women sleep less profoundly than men and hence dream more. 4. With increasing age dreams become rarer and sleep less profound. b. Who sleeps lightly needs less sleep. 6. The feminine need of sleep is greater. I might add with regard to the last point that the fact that women are better able to endure nursing children or invalids constitutes only an apparent contradiction of this point. The need of sleep is not decreased, but the goodwill and the joy of sacrifice is greater in woman than in man.

The extraordinary things people do in half−dream and in sleep are numerously exemplified by Jessen. Most of them are taken from the older literature, but are quite reliable. A comparison indicates

[1] F. Heerwazen Statistische Untersuchung <u:>ber Tr<a:>ume und Schlaf. Wundt's Philosophische Studien V, 1889.

<p 483> that such somnambulistic conduct occurs most frequently among the younger, more powerful, over−strained people, who, e. g., have not slept for two successive nights, and then have been awakened from deep sleep. It is remarkable that they often act intelligently under such circumstances−−that the physician

writes the proper prescription or the factory superintendent gives the proper orders, but neither knows anything about it later on. Criminalistically their significance lies on the one hand in the fact that they can be investigated with regard to their correctness; and on the other that they occur to people who had no reason to falsify. If a defendant tells about some such experience, we lack the means and the power to make an accurate examination of the matter, and tend for this reason to disbelieve him. Moreover, his very position throws doubt upon his statements. But this is just the ground for a careful study of similar occurrences in trustworthy people.[1] All authorities agree that actions during sleepiness[2] occur almost always in the first deep sleep, disturbed by dreams, of over−fatigued, strong individuals.

An important circumstance is the phenomenon cited by Jessen and others−−the capacity of some people to fall calmly asleep in spite of tremendous excitement. Thus, Napoleon fell into deep sleep during the most critical moment at Leipzig. This capacity is sometimes cited as evidence of innocence. But it is not convincing.

We have yet to mention the peculiar illusions of the phenomena of movement which occur just before falling asleep. Panum tells how he once inhaled ether, and then observed, lying in bed, how the pictures on the wall went further and further back, came forward and withdrew, again and again. Similar things happen to sleepy people. Thus, the preacher in church seems progressively to withdraw and return. The criminalistic significance of such illusions may be in the observation of movements by people who are falling asleep, e. g., of thieves who seemed to be approaching the witnesses' beds, though standing still.

That sleeping people may be influenced in definite ways is indubitable. Cases are mentioned in which sleepers could be made to believe any story; they would dream of it, and later on believe it. There is in this connection the story of the officer who acquired the love of a young girl in this fashion; the girl had shown definite distaste for him at first, but after he had told her during her sleep,

[1] P. Jessen: Versuch einer wissenschaftlichen Begr<u:>ndung der Psychologie. Berlin 1885.

[2] Cf. H. Gross's Archiv. XIII 161, XIV 189.

<p 484> in her mother's presence, of his love and loyalty, she began in the course of time to return it. It is a fact that certain of our burglars believe similar things, and carry them out in most cases with the assistance of red light, to which they assign hypnotic power. They claim that with a lantern with red glass they are able to do anything in the room containing a sleeping individual, and can intensify his sleep by letting the red light fall on his face, and speaking to him softly. Curiously enough this is corroborated by a custom of our mountain lads. They cover a lantern with a red cloth and go with it to the window of a sleeping girl. It is asserted that when the red light falls on the latter's face and it is suggested to her softly to go along, she does so. Then a pointed stone is placed in the girl's way, she steps on it, it wakes her up, and the crude practical joke is finished. It would be interesting, at least, to get some scientific information concerning these cited effects of red light upon sleeping people.

O. M<o:>nnigshoff and F. Piesbergen[1] have thrown some light on the profoundness of sleep−−why, e. g., a person hears a thing today and not at another time; why one is awakened and another not; why one is apparently deaf to very loud noise, etc. These authorities found that the profundity of sleep culminates in the third quarter of the second hour. Sleep intensifies and grows deeper until the second quarter of the second hour. In the second and third quarters of that hour, the intensification is rapid and significant, and then it decreases just as rapidly, until the second quarter of the third hour. At that point sleep becomes less and less profound until morning, in the second half of the fifth hour. At this moment the intensity of sleep begins again to increase, but in contrast with the first increase is very light and takes a long time. Sleep, then, reaches its culmination in one hour out of five and a half; from that culmination− point it decreases until it reaches the general level of sleep.

Section III. (b) Intoxication.

Apart from the pathological conditions of intoxication, especially the great intolerance toward alcohol,[2] which are the proper subjects for the physician, there is a large group of the stigmata of intoxication which are so various that they require a more accurate study than usual of their causes and effects. As a rule, people are

[1] Zeitschrift f. Biologie, Neue Folge, Band I.

[2] Cf. H. Gross's Archiv. XIII, 177.

<p 485> satisfied to determine the degree of intoxication by the answers to a few stereotyped questions: Did the man wabble while walking? Was he able to run? Could he talk coherently? Did he know his name? Did he recognize you? Did he show great strength? An affirmative answer to these questions from two witnesses has been enough to convict a man.[1]

As a rule, this conviction is justified, and it is proper to say that if a person is still sufficiently in control of himself to do all these things he must be considered capable of understanding the difference between right and wrong. But this is not always the case. I do not say that irrationality through drink must always obtain when the drunkard is unable to remember what happened while he was drunk. His inability is not determinative, because the circumstances following a deed have no reflex effect. Even if after the deed a person is ignorant of what he has done it is still possible that he was aware of its nature while committing it, and this possibility is the determinative factor. But the knowledge of what is being done does not in itself make the doer responsible, for if the drunkard beats the policeman he knows that he is fighting somebody; he could not do so without knowing it, and what excuses him is the fact that while he was drunk, he was not aware that he was fighting a policeman, that so far as he is capable of judgment at all, he judges himself to be opposed to some illegal enemy, against whom he must defend himself.

If it be said in opposition that a drunkard is not responsible if he does, when drunk, what he would not do when sober, this again would be an exaggeration. Why, is shown by the many insults, the many revelations of secrets, the many new friendships of slight intoxication. These would not have occurred if the drunkard had been sober, and yet nobody would say that they had occurred during a state of irresponsibility.

Hence, we can say only that intoxication excuses when an action either follows directly and solely as the reflex expression of an impulse, or when the drunkard is so confused about the nature of his object that he thinks himself justified in his conduct. Hence, the legal expressions (e. g., ``complete drunkenness'' of Austrian criminal law, and ``unconsciousness'' of the German imperial criminal statute book) will in practice be pushed one degree higher up than ordinary usage intends. For complete intoxication or drunkenness into loss of consciousness usually means that condition in which the individual lies stiff on the ground. But in this condition he can not do anything,

[1] H. Gross's Archiv. II, 107.

<p 486> and is incapable of committing a crime. It must follow that the statutes could not have been thinking of this, but of the condition in which the individual is still active and able to commit crimes by the use of his limbs, but absolutely without the control of those limbs.

If we compare innumerable stories that are told, with verbal reliability, about drunkards, or those that are readable in daily papers, police news, and in legal texts, we find groups in which a drunkard makes his bed on a wintry night on a snow bank, undresses himself, carefully folds his clothes beside him, and runs away at the approach of a policeman, climbs over a fence and runs so fast that he can not be caught. Such a man certainly has not only the use of his organs, but also uses them with comparative correctness in undressing, folding his clothes, and in running away. If now somebody should pass the drunkard's lair and if he should think that a burglar is in his house and should wound the passer−by, who would believe the drunkard when he tells this story?

In the street there is frequent opportunity of observing some of the arrests of drunkards who fight with fists and feet and teeth, and often have to be taken to the police station in a wheel−barrow. Now if the man has had the misfortune of recognizing the policeman in his first opposition, and of giving his own name properly, we say that he has ``shown definite signs of responsibility,'' and we sentence him. But in most cases it was merely the instantaneous illumination of his cindery mind (which was, perhaps, stimulated to the recognition of the policeman and the pronunciation of his name by the latter's rather bearish remarks) which then dies away as swiftly as it rose, and is followed by instinctive self−defense. Anybody who has frequently observed how utterly senseless is the battle of a drunkard with the overwhelming power of three or four or more people, and how he continues to struggle, even when wholly or completely conquered, must feel convinced that such a man is no longer responsible.

In the same way we must never forget that the prosecution of some very habitual activity is in no sense evidence of responsibility. Especially when some action has very fine−drawn limits, and the actor knows that a false grip will result in questionable consequences, the habitual movement will be made instinctively. The soldier will properly carry out his obligations of service, the coachman drive home, unharness, and look after the horses, even the locomotive engineer will complete his difficult task without a break−−then, however, they fall and sleep their drunkenness off. Now, if something intervenes unexpectedly during the performance of this ha− <p 487> bitual activity, especially some opposition, some superfluous cajolement, correction, or similar thing, the intoxicated actor is thrown completely out of gear, and can not be restored to it, nor is he able properly to oppose this obstacle. Hence he acts against it reflexly, and in most cases explosively.

It may be perceived that such a drunkard works unconsciously having been thrown out of gear by some sudden remark, he is unable to complete what he is trying to do, and this develops a despairing expression of emotion for which he is decidedly not responsible. A countless number of popular maxims indicate the popular opinion that it is best to get out of the way of a drunkard, never to help him, because he can best look after himself. The public seems to know this very well, theoretically, but in practice no wife applies this theory when her drunken husband comes home; in practice the policeman looks after the drunkard, in practice the peasant and the master quarrel with the drunken servant and the apprentice,−−and then everybody wonders when suddenly superiors are hurt, maimed, and otherwise opposed.

The best evidence for the certain but very definite routine in which the drunkard moves, is the example cited by Combe[1] concerning the porter who, while drunk, had wrongly delivered a packet. Later on he could not think where he had brought it, but as by chance he got drunk again, he fetched the packet, and brought it to its proper destination. This process indicates that the ``in vino veritas'' depends not merely on speech, but on action, and that this coming to the surface of what is really thought is the reason for so many insults offered during intoxication. Such phenomena are best studied at the beginning of narcosis, in which all the conditions of intoxication come together in a much briefer period of time, and hence appear much more clearly. How involuntarily the inmost thought breaks through under such circumstances, is shown by an occurrence in a surgical clinic. An old peasant was to have been subjected to a not dangerous but rare operation. The famous surgeon of the University had one student after another make a diagnosis, and asked one student after another what kind of an operation he would perform. The peasant misunderstood it altogether, and as he was half stupefied he cried out involuntarily: ``The old donkey is asking one loafer after another what to do. Nobody knows anything, and yet they are going to operate on me.''

[1] Andrew Combe: Observations on Mental Derangement. Edinburgh 1841.

<p 488> Things that are thought are expressed just as involuntarily during intoxication, and thus the insults, etc., are accomplished.

What is never believed, but yet may be true, is the defence of a prisoner that intoxication led him to steal. I know of a talented, kindly, and thoroughly honorable young man, who during slight intoxication steals everything he can lay his hands on. His drunkenness is so light that he can remove with complete skill his

comrades' cigarette cases, pocket handkerchiefs, and worst of all, their latchkeys. At the same time, he is still drunk enough to have great difficulty in remembering, the next day, who the owners of these things are. Now suppose a thief told such a story in court!

I cite from the excellent account of Hoffbauer,[1] the development of intoxication: ``At first the consumption of liquor intensifies the feeling of physical health, or increases that health. It appears to have a proportionately similar effect upon the powers of the mind. Ideas move easily, expression is smoother and more adequate. The condition and emotional attitude are such that one might very well always wish for one's self and one's friends. Until this point no intoxication is visible. The flow of ideas only increases and becomes more intense. Excellent, appropriate notions occur to one, but there is effort to restrain the irregular flow of thought. This state is visible in the effort which must be used to carry on any rather involved story. The ideas flow too rapidly to be easily ordered according to the requirements of the story. At this point the beginning of intoxication is already perceptible. In its development the flow of ideas becomes continually stronger, the senses lose their ordinary sharpness, and as these fail the imagination grows stronger. The drinker's language is now, at least in particular expressions and turns of speech, more voluminous and poetical, and rather louder than is natural. The former indicates an intensification of imaginative power, and the latter a dulling of the senses which becomes more and more obvious in the development of the intoxication. For the drinker speaks louder because he hears his words less clearly than before, and judges the hearing of his auditors by his own, although the vividness and the more rapid flow of ideas induced by intoxication have a share in this. Soon the dulling of the senses becomes still more obvious. For example, it is seen that a person who is so drunk that he confuses otherwise well−known companions, even if only for a minute, thinks he puts his glass softly on the table,

[1] J. C. Hoffbauer: Die Psychologie in ihren Hauptanwendungen auf die Rechtspflege. Halle 1823.

<p 489> although it falls to the ground. And then there are still other forms of physical helplessness to be perceived. From his speech it may be judged that the connection between his ideas has significantly decreased: although still very vivid, they are now like luminous sparks that appear and disappear. This vividness of ideas, or their rapid flow, gives the inebriate's desires an unmanageable intensity which reason can no longer control. He follows them instantaneously if some accident does not turn him aside. His physical helplessness becomes now obvious in stammering, in a wabbly gait, etc., until finally he falls into a deep sleep in which physical and intellectual repair begin.

``If the conditions of intoxication were to be divided into periods, we should have the following: In the first period of intoxication ideas have only an extraordinary degree of vividness. The rule of the understanding over actions is not altogether suppressed, so that the drunken fellow is fully conscious of his external relations and is aware of what is going on within and about him. But the rapid flow of ideas hinders careful reflection and leads to an intensified excitability, particularly to those emotional expressions which are characterized by the more rapid flow; This is due to the familiar psychological law according to which one emotional condition leads into another as it is more like that other in tone. Anger and merriment, hence, show themselves more and more among uneducated people who are not habituated to the limitation of their emotional expression by reference to the forms of the world of fashion. Without this control, every stimulation intensifies the emotion, since every natural expression adds to its vividness. The irritability taken in itself is at this stage less dominant, inasmuch as the drinker is at the same time satisfied with himself, and the self−satisfaction makes the irritability endurable. Only some accidental circumstance can intensify and spread this irritability. Such circumstances intensify the drunkard s liveliness and lead to the outbreak of merriment approximating upon hilarity, then to a verbal quarrel, which need not yet be a real quarrel and may be conducted in all friendship. It seems that in most cases the irritability is excited through the fact that the drunkard's self−satisfaction speedily lapses, or that he is disturbed in doing things about which he is conceited. Now so long as the intoxication does not exceed this stage, its effects and the outbreaks of its passions may be suppressed. The drinker is here still self−possessed and is not likely to lose control of himself unless he is progressively excited thereto. <p 490>

``In the next period of intoxication, the drunkard still has his senses, although, all in all, they are considerably weaker than usual, and he is somewhat beside himself. Memory and understanding have quite left him. Hence, he acts as if the present moment were the only one, the idea of the consequences of his actions having no effect upon him because he no longer sees the connection between the two. And since his whole past has disappeared from his mind he can not consider his more remote circumstances. He acts, therefore, as he might if the memories of his circumstances and ideas of the consequences of his actions did not control his conduct, and lead him to rule himself. The slightest excitation may awaken all his strongest passion which then carry him away. Again, the slightest excuse may turn him from what he has in mind. In this condition he is much more dangerous to himself and others because he is impelled not only by the irresistible force of his passions, but because, also, he rarely knows what he is doing and must be considered a pure fool.

``In the last period, the drunkard has so lost his senses that he has no more idea of his external environment."

With regard to particular conditions, it may be held that the quantity of drink is indifferent. Apart from the fact that we know nothing about the quantity of alcohol a man has taken when we hear merely about so and so many liters of wine or so and so much brandy, the influence of quantities is individual, and no general rule whatever can be laid down. As a matter of fact, there are young and powerful men who may become quite foolish on half a glass of wine, especially when they are angry, frightened, or otherwise excited, and there are weak old people who can carry unbelievable quantities. In short, the question of quantity is altogether foolish. The appearance and constitution of an individual offers as little ground for inference as quantity. The knowledge of a man's regular attitude toward the consumption of alcohol is a safer guide. Hellenbach asserts that wine has always the same influence on the same individual; one always becomes more loquacious, another more silent, a third more sad, a fourth merrier. And up to a certain limit this is true, but there is always the question of what the limit is, inasmuch as many individuals pass through different emotional conditions at different stages. It often happens that a person in the first stage who wants to ``embrace the world and kiss everybody," may change his mood and become dangerous. Thus, anybody who has seen him several times in the first stage may make the mistake of believing that he <p 491> can not pass it. In this direction explanations must be made very carefully if they are not to be false and deceptive.

It is important, also, to know how a man drinks. It is known that a small quantity of wine can intoxicate if it is soaked up with bread which is repeatedly dipped into the wine. Wine drunk in the cellar works with similar vigor if one laughs, is merry, is vexed, while drinking, or if a large variety of drinks is taken, or if they are taken on an empty stomach. For the various effects of alcohol, and for its effects on the same person under different conditions, see M<u:>nsterberg's ``Beitrage zur Experimentellen Psychologie," Heft IV.

The effect of alcohol on memory is remarkable in so far as it often happens that many people lose their memory only with respect to a single very narrow sphere. Many are able to remember everything except their names, others everything except their residence, still others everything except the fact that they are married, and yet others every person except their friends (though they know all the policemen), and the last class are mistaken about their own identity. These things are believed like many another thing, when told by a friend, but never under any circumstances when the defendant tells them in the court room.

Section 112. (c) Suggestion.

The problems of hypnotism and suggestion are too old to permit the mere mention of a few books, and are too new to permit the interpretation of the enormous literature. In my ``Manual for Examining Judges," I have already indicated the relation of the subject to criminal law, and the proper attitude of criminalists to it. Here we have only to bear in mind the problem of characteristic suggestion; the influence of the judge on the witnesses, the witnesses upon each other, the conditions upon the witnesses. And this influence, not through persuasion, imagination, citation, but through those still unexplained remote effects which may be best compared with ``determining." Suggestion is as widespread as language. We receive suggestions through the stories of friends, through the examples of strangers, through our physical condition, through our food,

through our small and large experiences. Our simplest actions may be due to suggestion and the whole world may appear subject to the suggestion of a single individual. As Emerson says somewhere, nature carries out a task by creating a genius for its accomplishment; if you follow the genius you will see what the world cares about. <p 492>

This multiple use of the word ``suggestion" has destroyed its early intent. That made it equivalent to the term ``suggestive question." The older criminalists had a notion of the truth, and have rigorously limited the putting of suggestive questions. At the same time, Mittermaier knew that the questioner was frequently unable to avoid them and that many questions had to suggest their answers. If, for example, a man wants to know whether A had made a certain statement in the course of a long conversation, he must ask, for good or evil, ``Has A said that . . . ?"

Mittermaier's attitude toward the problem shows that he had already seen twenty−five years ago that suggestive questions of this sort are the most harmless, and that the difficulty really lies in the fact that witnesses, experts, and judges are subject, especially in great and important cases, to the influence of public opinion, of newspapers, of their own experiences, and finally, of their own fancies, and hence give testimony and give judgments in a way less guided by the truth than by these influences.

This difficulty has been made clear by the Berchthold murder− trial in M<u:>nchen, in which the excellent psychiatrists Schrenck− Notzing and Grashey had their hands full in answering and avoiding questions about witnesses under the influence of suggestion.[1] The development of this trial showed us the enormous influence of suggestion on witnesses, and again, how contradictory are the opinions concerning the determination of its value−−whether it is to be determined by the physician or by the judge, and finally, how little we know about suggestion anyway. Everything is assigned to suggestion. In spite of the great literature we still have too little material, too few observations, and no scientifically certain inferences. Tempting as it is to study the influence of suggestion upon our criminalistic work, it is best to wait and to give our attention mainly to observation, study, and the collection of material.[2]

[1] Schrenck−Notzing: <U:>ber Suggestion u. Errinerungsf<a:P>lsehung im Berehthold− Prozess. Leipzig 1897.

[2] 51. Dessoir Bibliographie des modernen Hypnotismus. Berlin 1890. W. Hirsch: Die Mensehliche Verantwortlie it u. die moderne Suggestionslehre. Berlin 1896. L. Drucker: Die Suggestion u. Ihre forense Bedeutung. Vienna 1S93. A. Cramer. Gerichtliche Psychiatrie. Jena 1897. Berillon Les faux temoignages sugg<e'>r<e'>s. Rev. de l'hypnot. VI, 203. C. de Lagrave: L'autosuggestion naturelle. Rev de I hypnot. XIV, 257. B. Sidis: The Psychology of Suggestion.

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